THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

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Practical Husbandry.

Farming on Long Island.

Local circumstances must always have an influence on the course or system of farming adopted in any particular district. The relative demand and value of products, together with the facilities for production, must govern the farmer in the selection of crops for cultivation. The near proximity of large cities and towns, may render it profitable to cultivate articles, which, in neighborhoods remote from market, would be comparatively valueless. The rapid increase of consumers of agricultural products, in some parts of our country, is constantly changing or modifying the course of farming in those sections; and this influence is being more and more extended with the extension of the means of rapid and easy communication with the interior. Perhaps there is no part of the country which has been more affected by the late great improvements in intercommunication, than a large portion of Long Island. A view of the mode of farming now practiced in one of the most important counties of that section, is admirably given in an address delivered before the Queens County Agricultural Society, by Hon. JOHN A. KING, President of that Society, and now President of the New-York State Agricultural Society. We think our readers will be interested with Mr. K.'s remarks. EDS.

GENERAL HISTORY OF THE COUNTY.—I propose, in the remarks I am about to make, to depart somewhat from the course which has been usually adopted by those who have addressed this Society, and instead of treating of the subject of agriculture generally, I propose to confine what I have to say, principally to the county of Queens, the middle county of the Island upon which we live. Before, however, I enter upon the character of its soil, the course of tillage, and the application of manures to its varied crops, I would for a moment digress, and give a brief account of the position, settlement and climate of Queens county, stating at the same time, that most of the information and facts relating to these questions, are derived from the several histories of Long Island, and from the recent Geological Survey of the same, under the authority of the State, by Wm. W. Mather. Long Island then, by its position, its climate, the character of its soil, and the thrift and industry of its inhabitants, is a remarkable portion of the State of New-York. It lies on its southern extremity, between the 40th and 41st degrees of north latitude, and forms, with the Island of Manhattan, Staten Island and the Jersey shore, the noble harbor of New-York. It is in length, from Fort Hamilton, at the Narrows, to Montauk Point, about one hundred and forty miles; and from the Narrows to Peconic Bay, a distance of ninety miles, it varies in breadth from 12 to 20 miles. The first successful attempt by the English to settle Queens county, was made in the town of Hempstead, in 1643, by emigrants from New England, at whose head was the Rev. Richard Denton. Flushing was settled in 1645, under Thomas Farrington and others. Newtown by Englishmen in 1651, where the present village now stands; and the first patent or ground brief, was granted in 1652, by Governor Stuyvesant. Thomas Stevenson and his associates were among its first settlers. The first plantation in Oyster-bay, was commenced on the site of the present village of that name in 1653, by Englishmen, and the first deed from the Indians for land in that town, was made in 1653, to Peter Wright and others. Jamaica followed in 1656, upon the application of Robert Jackson and others from Hempstead. Robert Coe and his associates signed the first certificate of purchase Nov. 25th, 1656, for the settlement near the Beaver Pond, under a purchase from the Indians, and a grant from the Governor and Council of 21st March, 1656. North Hempstead was originally a part of Hempstead, and has no distinct records earlier than the year 1784. A settlement was attempted, at what is now Manhassett, in 1640, by a company of emigrants from Lynn in Massachusetts, but was broken up by the Dutch Governor Kieft. It will be perceived from the above statement, that the county of Queens is among the earliest settlements in the State of New-York. Its length from east to west is 26 miles, its breadth from north to south about 16 miles, making its whole area or surface 396 square miles, or 250,000 acres.

The influence of the ocean, which bounds it on the south and east, mitigates and tempers, both in winter and summer, the cold and the heat; so that the thermometer rarely falls below zero, or rises above 90. Of the 250,000 acres, the area of its surface, about 25,000 are salt meadow, and 25,000 plain and common lands, leaving 200,000 acres of land for cultivation, improvement or in wood. Its present population may be estimated at 32,000; and the assessment roll of its real and personal property, reaches nearly $12,000,000. Considering, then, the agricultural character of its inhabitants, their numbers, the size of the county, one of the smallest in the State, yet, the value of its land, and prosperity of its farmers, place it, in point of taxable property, the sixth or seventh in the State. Large as is this amount of property, in a county of such limited extent, and whose population is almost exclusively agricultural; yet I think it can be clearly shown that a full remuneration for the capital and labor expended in the cultivation of its soil, is annually received, and in many instances profitably invested, and that this steady return and increase, is as much due to the thrift and industry of those who till the soil, as to the character of that soil, and the variety of its products. A ridge or chain of hills commencing in Kings county, and extending nearly to Oyster Pond Point, on the northern fork of the Island, and rising in one or two places, to nearly 400 feet in height, divides the county into nearly equal parts. On the north side of this ridge, the land is often rough and broken, except where it stretches in necks

and headlands into the Sound, while the surface on the south side is nearly a plain, without rock or stone of any size. The soil of the Island, and of this county, has as much variety as its surface. Near the Sound, the land is hilly and uneven; the greater portion however, is either level or slightly undulating. The necks and headlands have generally a rolling surface, and a deep loamy soil slightly mixed with sand. On the south side of the hills, the surface is flat and the soil sandy, mingled in many places with loam and clay. The more elevated land is, in soil, superior to that of the plains, and better adapted to the growth of the grains usually raised in this climate. There are large tracts of land and woodland in the centre of the Island, which, until recently, have remained without any attempt to reduce them to cultivation. In this county we have a large body of land principally belonging to the town of Hempstead, which still lies in common, but is susceptible of being easily and profitably tilled, notwithstanding an immediate and considerable outlay is required for fences and manures. Kings county contains very little waste land, and is in the aggregate, more fertile than any equal portion of the Island. Perhaps this is, in a great degree, to be accounted for, as much from the excellence of the soil, as from its proximity to the cities of Brooklyn and New-York, from whence manures of various kinds can be more cheaply and easily procured.

System of Husbandry.—With these preliminary remarks respecting the general features of the Island, and the county of Queens, which I trust may not be deemed inappropriate to the subject in hand, I will proceed to describe in the best way I can, the system of husbandry, which is pursued in this county. It must be in the recollection of many, who are here present to-day, that the general course of cultivation was formerly, in many essential particulars, different from its present practice. Before the Erie canal was completed, wheat, and barley, and rye, were largely raised for sale, and the flouring mills on the Island had as much business as they could attend to; the quality of the grain raised was excellent, and the reputation of the mills on the north shore was well established for the quality of their flour. The construction of that great work of internal improvement, very soon caused a radical change in the husbandry and crops of the county. We could no longer compete with the rich and virgin lands of the west, in the production of the cereal grains; and it was at one moment feared that the value of our lands, and the prosperity of our farmers, would be seriously affected by the cheapness, fertility, and great extent of the western lands. Such, however, was not the case. The effect of opening the Erie canal, was, it is true, to bring the crops of the West into immediate competition with those of the older parts of the State, which, so far, had enjoyed a monopoly: and at the same time to force those sections, particularly those near to the city of New-York (for as yet, Brooklyn was only a village) to change their system of husbandry, and the course and character of their crops. And the farmers of the western part of Long Island, with that unerring sagacity which interest always prompts, quickly adapted the cultivation, and the crops, to the new and more extended demand which the increasing and varied wants of a great and rapidly growing city could not fail to produce. The natural and predicted consequence of the opening of the Erie canal, was first to enlarge and enrich the city of New-York, by pouring into her warehouses, for consumption and export, the immense and increasing harvests of the unlimited West; still to be multiplied as they have been, year by year, until by new and improved channels of communication, the borders of all the great Lakes now receive and distribute the overflowing productions of regions as vast, and as fertile, as the sun in its daily course, blesses with its glorious beams. The greater part of this annual tribute of Agricultural wealth, finds its way to the noble seaport of our State—the great commercial mart of the Western continent; thence to be distributed among those Atlantic States whose productions are of a different character; and also, among the countries of the world, in exchange for the productions and the fabrics of their skill. The result and effect of these new and varied elements of wealth poured into the city of New-York, was immediately felt, in the extension of her commerce, the increase of her population, and in the enlargement and improvement of the city itself. This impulse, so powerfully felt by the city, was soon communicated to the surrounding country; and as the number and means of the citizens increased, the demand for those productions which the farmers in its neighborhood could alone most easily and profitably supply, was soon greatly augmented. Hence, as the growth of New-York, and subsequently of Brooklyn, continued to increase from the causes above alluded to, it followed as a consequence of so many being devoted exclusively to the commerce and the trades connected with it—and all consumers of what another class could alone produce—that the lands in the immediate vicinity of these cities must advance in value—first, for the erections of houses and buildings, and next for the cultivation and supply of those articles most needed from day to day for the consumption and support of two large cities. And such must continue to be the course of improvement, and the increasing value of the lands in the western part of this Island, as the cities of New-York and Brooklyn shall continue to prosper and augment. The system of husbandry in this part of the Island, and reaching to the eastern towns of Queens county, has, as was before stated, and as a natural consequence of our position and soil, undergone a great change in the character and value of its productions. Formerly wheat, rye, oats and corn, were the staple crops, and to a certain extent, some of them still continue of that character. Now, it may be said that wheat, and rye, and barley, are no longer raised as staple crops, nor to the extent of former years. But corn, and oats, and hay, are now the main and, as farming crops, perhaps the most productive and the most relied on. Potatoes, cabbage, peas, beans, asparagus, tomatoes, and other vegetables, in those parts of the county most conveniently situated for that purpose, have been largely cultivated for market, and two crops are now not unfrequently taken during the same season, from the same piece of ground; thus bringing a double return to the farmer for his labor and expense. On the south side of the Island, where the soil is light, sandy and warm, all the early vegetables and small fruits have, with the aid of ashes and manure, been grown with great success and advantage. And there, too, within a few years, large orchards of peach trees have been planted, whose fruit has been abundant, fair, and finding a ready market; while the stronger and more loamy soils in the centre, and on the necks and headlands of the north side, have, by a similar process of high cultivation, been rendered productive of the finest crops of corn, oats and hay; and where lands are finally laid down to grass, of excellent crops of wheat, rye and barley. But it should always be remembered, that while on the one hand, the nearness of a great and steady market has afforded the inducement, and stimulated the exertions of the farmers of the western part of the Island; yet on the other hand, they with great sagacity and persevering industry, have been quite equal to the new system of husbandry, which in so many instances they have been called upon to enter into. And that though prudent and saving in all other matters, they have learned the wise lesson, that it is not for their interest to starve the land. It

It has been truly said, you cannot cheat the land, for it will reproach you if you do. Another maxim, which I believe is held for truth among us, is, that the more generously you treat the land, the more abundantly it will repay the outlay.

Rotation of Crops and Manures.—I will now proceed to say a few words upon the general rotation of crops on regular farming lands, and the application of manures to the various crops, as they come in their assigned order, from my own observation, as well as from the report of others. It may be stated that the lands in Queens county, as a general rule, are broken up every five or seven years; that corn, one of the surest crops, succeeded by oats, are the two fallow crops, and that the land is then laid down with wheat, rye or barley, and the grass seeds. It is mowed two or three years, and pastured afterwards, until it is time to repeat the same process. The manner of applying manure, ashes, lime, &c., which are those chiefly relied upon, and used in the cultivation of the various crops—(though guano bone and fish have their advocates) depends, as to their quantity, upon the condition and character of the soil, and the nature of the crop to be cultivated. While nearly all the straw, and more than half the hay, is carried off the farm and sold, and their place only measurably supplied by salt and sedge hay, the quantity of manure made in the barn-yard, must necessarily be much diminished, and its deficiency supplied, if the system of frequent cropping is carried on, from other sources. Hence Long Island, in all its length and breadth, particularly in its western counties, depends essentially upon a supply of the richest manures, from the cities and towns on the North and East Rivers, which is brought by water and railway to the nearest points where it is required; and the farmers of this county proceed, and have proceeded for years, upon the principle that it is better and more profitable to sell the corn and oats, the straw and the hay, for cash in the market, and with it, to purchase the manures required for the growth of their crops, and the maintenance of their farms in good condition.

In breaking up the land for corn, they do best who plow in the fall, and cross-plow in the spring, spreading the whole ground with such manure as they may have, and then adding at the time of planting in the hill, half a shovel full of well-rotted manure. By this process a quick start is given to the plant, leaving it afterwards to draw its support from the soil around, in which the long manure is slowly decomposed, and continues to supply nourishment to the plant during the period of its growth. Others manure the corn in the hill only, and sometimes, when it is up, and of sufficient size, strew a little leached or other ashes, around the young plant. As it is a certain, so it is a general crop, yielding, according to cultivation and manure, from twenty to eighty bushels per acre. For oats, it is not usual to give any manure; sometimes, however, ashes are applied, where the nature of the soil is supposed to require it. But usually it is a crop which is grown free from any other charge, than putting the ground in good condition by the plow, and an early sowing of the seed. As soon as the oats are cradled, or as soon thereafter as the ground will admit of it, the land is slightly plowed, so as to cover the stubble sufficiently, in which state it remains until it is time to mark it out, and cart on the manure and ashes, as both are frequently applied together where the character of the soil would seem to indicate the propriety and advantage of their joint use. The quantity of manure, and of the best quality, which at this time is put upon each acre, will vary from 30 to 40 cart loads; with an addition sometimes of 100 bushels of ashes. Between the end of September, and the first ten days of October, the wheat is sown at the rate of two bushels an acre, with from six to eight quarts of timothy seed; and as early in the spring as the state of the weather and of the ground will admit, about eight or ten pounds of clover seed are sown per acre. From land thus laid down, if the season is favorable, from twenty to twenty-five, and in some instances, thirty bushels of good wheat will be harvested; of rye, from twenty-five to thirty bushels; of barley, from 40 to 50 bushels. If the grass seeds take well, from two to two and a-half tons of hay may be cut on the ensuing year. The labor of tillage in this county is, generally speaking, comparatively light, and hence a less number of animals are needed for the purposes of a farm. A pair of horses, mules, or cattle, have, with some few exceptions, power enough to turn up the sod with ease, and to prepare the land for a crop. And with the aid of the same horses and mules, where the farm is near enough to the cities the farmer is enabled himself to transport his produce in wagons or carts to a ready and a cash market. So far as my own experience and observation can be relied on, and they are sustained by the opinion of many practical agriculturists, deep plowing for corn and potatoes, where the land will admit of it, is a practice which if more frequently followed, would well repay the farmer. But if you plow deeply, you should manure generously, and by the aid of both you will increase the depth and excellence of the soil, in which the roots of plants will find room to spread, and find protection from the extremes of heat and cold. The amount, the variety, and the value of the productions of Queens county, can only be estimated and measured by the census of 1840; the only means at this time within our reach for such a purpose. By the returns of that census, the number of improved acres of land in the county was 125,636, of which there were in grain 49,906, and in meadow and pasture, 73,710, whose annual products of all kinds reached the value of $1,764,604; agreeably to a statement and calculation, which will be found in a note below.*

There is another source of profit, which I must not omit on this occasion, and in connection with the foregoing statement. It is the large and valuable nurseries, and horticultural and botanical establishments, which for so many years have given celebrity to the county, as well as to their enterprising and intelligent proprietors; who cultivate about 200 acres, on which nearly 2,000,000 trees are supposed to stand.

The above sum of $1,764,605, the gross value of

	Acres.	In Grain.	Meadow & Pasture
* Newtown,	12,397	5,403	6,994
Jamaica,	11,098	4,106	6,992
Flushing,	11,688	4,541	6,127
North Hempstead,	23,580	11,791	10,789
Oysterbay,	35,995	10,192	25,803
Hempstead,	29,878	12,873	17,005
	125,636	49,906	73,710

	Acres.	Total bu.	Bu. pr. acre.	Value.
In Wheat,	4,464	99,374	20 at 10s.	$124,217
Corn,	17,228	440,200	25 5s.	275,125
Oats,	12,148	323,824	27 3s.	121,434
Potatoes,	2,435	229,966	95 4s.	114,983
Rye,	5,810	61,682	11 5s.	38,552
Buckwheat,	4,417	67,567	15 4s.	33,783
Peas,	617	38,249	62 4s.	38,214
Beans,	289	26,796	90 8s.	26,796
Of the 75,000 acres in meadow and pasture, two-fifths, or 30,000 acres, may be set down as mowing ground, yielding, one year with another, one and a-half tons of hay, or 45,000 tons, at $12.50 per ton, is,				572,500
Wheat and Rye straw, one-half the value of the grain,				82,000
Salt and sedge hay, at one-fifth the value of English hay				112,000
Oat straw, corn tops and bottoms, 40,000 loads at $1.50,				60,000
Cabbages, asparagus, and other vegetables, and small fruit,				50,000
Pork, poultry, lambs, veal, eggs, butter, milk, cord wood, and locust timber,				125,000
				$1,764,604

the annual productions of the country, is now to be diminished by the cost of labor and manure, and the wear and tear, as follows:

To the value of the real estate,.....		$7,500,000
Deducting for villages and their buildings,		1,000,000
		$6,500,000
Add to the personal estate, for stock, farming implements, wagons, carts, &c., ...		1,500,000
		$8,000,000
The balance of personal estate,	$3,000,000,	being at interest, or variously invested.
Deduct, for labor on 50,000 acres arable land, at $6 per acre,..	$300,000	
And on 30,000 acres meadow or mowing land, at $3 per acre,	90,000	
For manures made and purchased, the one being equal to the other, as will be shown,.....	454,000	
For wear and tear,.....	80,000	
		924,000
Nett receipt, ...		$840,605

Or more than 10 per cent. on $8,000,000 of agricultural capital; or $7 nett per acre on 125,000 acres improved lands, and $17 nett per acre on the 50,000 acres of arable land.

The average size of the farms will scarcely reach eighty acres, and the average value of all the lands in the county, 250,000 acres, is agreeably to the assessment roll, $30; of the improved land, 125,000 acres, $60 per acre; of the number of acres returned for taxation, 170,000, $47 per acre. The number of acres of improved land in the state is 12,000,000. Its hay crop is 3,000,000 tons, or rather more than one-quarter of the whole hay crop of the United States. In the year 1825, the Erie canal was completed. At that time the population of the city of New-York was 166,000, and the value of her real and personal property, $100,000,000. Then the county of Queens had 20,000 inhabitants, and an assessment roll of less than $6,000,000. In 1848, the city of New-York had a population of more than 400,000, and an assessment roll of $250,000,000; and the county of Queens, a population of 32,000, and an assessment roll of nearly $12,000,000. It is thus, I think, clearly shown, that the growth and influence of great cities, and the congregation of great numbers who are not producers, but must be fed, ever has been, and ever will be the source of increased value to the lands within a reasonable distance, and of profit and emolument to those who are owners or tillers of the same.

Annual Expenditure for Manure.—It remains now to be shown what sums are annually spent independently of labor, for the manures, ashes, lime, &c. An attempt has been made to form an estimate which should be safe, upon this subject, and some pains have been taken to get at the details, in which I have been aided by several intelligent friends; and the result is as will be seen below, that an annual sum of $227,000 is expended for the purchase of manures.*

This calculation is supposed by many to be below the actual outlay for manure, taking one year with another; and I have heard it suggested as a curious fact, or rather conjecture, that large as is this amount, an equal amount in value is annually received from the sale of the fish, clams, oysters and wild fowl of our Bays and Sound.

This estimate, while it is to be considered only as an attempt to fix the amount of outlay annually incurred by the farmers of Queens county for the materials to enrich their soil, furnishes at the same time the best evidence, that the profits of agriculture must be large and remunerating, in order to induce the farmers, who always look closely to their own interest, to expend annually so large a share of their receipts for such a purpose.

If, then, to the above sum of $227,000 expended for manure, be added the amount of that made on the land, estimated according to the English calculation at so much per head of the animals of the county, viz., cattle and horses at 13 cart loads, cows at 10, and sheep and swine at 1½, it will be found that about 460,000 cart loads of manure at 4s., are annually made, equal in value to that procured from all other sources; 75,638, being the number of animals by the census of 1845, which calculation gives 6 loads per head all round.

It will be perceived that I have not entered into the field of chemical analysis as respects the soil or the manures to be applied to it; this has been done by others, on former occasions; and is a subject now within the reach and understanding of all, from the cheap and numerous treatises upon the subject. I have confined my remarks to the practical view of our agricultural condition and capabilities, and have endeavored by a plain statement of facts as they are believed to exist, to give to those most interested in the prosperity and welfare of the county, such details respecting its soil, its husbandry, its products, and its prospects, as may encourage them and others to pursue, with diligence and profit, the most independent and healthful occupation that man can exercise. The state of New-York, ever mindful of her own commanding position, was the first to commence the great work of internal improvements, and well has she been repaid for her wise forecast. Having provided the channels of communication, upon which might be borne the products of her own, and those of other states, she then expended a large sum of money, during a series of years, in the Geological Survey of the State; copies of which great work were distributed among the counties, at the cost price. She went one step further; for, remembering that agriculture was the occupation and support of the great mass of her people, she appropriated an annual sum of $8,000 for the improvement and encouragement of agricultural and domestic manufactures, a portion of which is paid to the several counties of the state, upon their raising an equal amount.

Having now concluded the remarks which I proposed to address to the society, and which I feel have but poorly rapaid your patient attention, it remains for me

* At the landings of the town of North Hempstead, there was received from the 1st of July, 1847, to the 1st of August, 1848—

59,200 cartmen's loads of manure,		
147 tons of guano,		
3,800 loads of ashes,		
1,800 loads of lime,		
1,500 bushels of bone,		
30,000 bony fish.		
The value of which was,.....		$47,878
The Long Island Railroad transported, during the same period, and principally for this county,		
14,000 loads of ashes,		
25,000 loads of manure,		
16,009 bushels of lime,		
Value, independently of guano, bone and bony fish,.....		42,371
		$90,249

If the 10,000 acres of arable land in North Hempstead require, in addition to that supplied by their own barn-yards, an outlay of nearly $50,000 a year for manure, Oysterbay, whose cultivation is about equal in amount, and, if as perfect, would also require an equal outlay,..... $47,878

Flushing, with about one-half the number of acres,... 23,939

Newtown, with rather more than half,..... 30,000

Hempstead, with 12,700 acres, would require a larger outlay than the towns already named; but, as she has other sources of supply, near at hand, from sea-weed and fish, I would not place her outlay beyond,..... 20,000

Jamaica, with about 4,000 acres requiring the aid of manure, a part of which is supplied by the L. I. Railroad, as is also that part of its line of road through the several towns of the county, may still be put down at an outlay of 15,000

Making together the sum of..... .....$227,066

only to exhort the farmers of this old county to a steady perseverance in their honorable occupation; which has so far rewarded their toil and industry with competence and independence. May they properly estimate and approve of the provision which the state has thought proper to make for the promotion of the great cause in which they, and their brethren throughout the length and breadth of the land, are so steadily engaged. The benefit and advantages of which have again and again been made manifest both at the state and county fairs. So much so, that it is now a matter generally conceded, that inquiry and exertions have been stimulated, a more perfect system of cultivation pursued, a great improvement in all the implements of husbandry obtained, the breed of cattle and horses carefully attended to; and finally, an accurate knowledge of the component parts of soils, as well as of the qualities of manure, placed within the reach of all. In all these matters the farmers of the state have a deep interest. They constitute the great mass of its inhabitants, are constantly and laboriously employed in the cultivation of its soil, the gathering of its crops, and their transportation to the best market. An occupation as honorable and useful as it is ancient and necessary; and too much neglected by the youth of our country for other and more uncertain pursuits; one, too, in which the passions and the worst feelings of our nature find little room for growth or display, where the regularity of labor, the comforts of life, and the feeling of independence, which the ownership of the land ever imparts, tempers and chastens the character and sentiments of the tiller of the soil. Such is eminently the condition and the lot of the farmers of this noble state: may such continue to be the inheritance of their children.

System, Order, and Economy.

The farmer of the state of New York is deprived of the many and necessary facilities for studying, comprehending, and intelligibly practicing his profession. The farmers of the state of New York contribute more to the due education and accomplishment of the ministers of religion, of lawyers, physicians and merchants, by full three fourths, than either of the above classes do or can contribute for their own advancement, because when combined they even then do not amount in numbers to one fourth of the farmers of this state. We farmers, then, pay for the establishment of schools and colleges, of academies and universities, the energies of which are mainly exerted and directed to educate and advance the classes above referred to; and from them emanates special appliances for their respective individual classes. The farmer has reason to rejoice and feel proud of the benefits he is thus so largely instrumental in producing; he knows, acknowledges, and bows to, the efforts of the man of God, who meekly and purely devotes himself to the guidance of his fellow beings in the only path which leads to true and enduring happiness. The farmer has a proud satisfaction, too, in the means he has so richly afforded in bringing forward the eminent lawyer, who, when pursuing his own proper duty, is exercising benevolence and talent of the highest order in adjusting and regulating the contentions of his fellow men; and thus through all classes, the farmer has cause to rejoice and feel proud, in his liberal and cheerful efforts to develope and sustain them. But what has this powerful body of men done for themselves? *Nothing—nothing* for their own special advancement in the art and science of agriculture!!

And here let me ask reference to one of the principles claimed to be established at page 79 of the *Cultivator*, when first calling the attention of my brother farmers to the value and necessity of *order, system and economy*, it was then stated that "the power of man, when used without the application of mind or intellect, degrades him in his own estimation, reducing him to a condition of servitude and dependence."

It is not to be supposed that any man will deny this position, for we have abundant proof in the abject condition of man, thus circumstanced at various places on this earth. Admitting the truth of this position, is it not equally true, that the greater amount of intellect employed in directing the power of man, the more elevated, free and independent is his condition? Now let us apply these truths to *our* class, as farmers, and compare the amount of intellect we use in our vocation with the amount used by the divine, the lawyer or physician. Must we not frankly admit, that to a great extent, we are negligent in this particular; and, consequently, where this neglect prevails, there we are valued below our capacities and natural conditions? Yes, we may not deny it, but we can and ought promptly to open to the body of farmers the broad door to knowledge, whereby we may readily and easily substitute intelligence for mere force, "the power of knowledge for the power of muscle." While we participate in common in the blessings of our common schools, and while we joyfully and gladly contribute to the advancement of knowledge among other classes, let us no longer neglect the interests of our own sons, but with unceasing energy claim an equal distribution of *all the facilities* for the distribution of science and art, as applicable to the cultivation of the earth.

As our colleges and prominent seminaries are now conducted, they give us abundant opportunities for training the mind, for exercising it and enabling it to grapple with abstruse studies. All this is well, and is quite as important to the farmer as to any profession; but once within the walls of our present educational halls, and we find that the minds of the boys, though well exercised, are insensibly led from the most important and pure views of progress in life, by means of agriculture, to hazard their destinies in the ambitious short-lived road of public employment, or in the scheming, speculative tracks of trade and commerce. Here is the point, then, we must needs start from: either our existing system of education, in all our seminaries, must make agriculture a department equal in importance and as honorable in pursuit, as any and every other vocation of man, otherwise a large portion of the funds which we farmers now contribute for education, must be applied to the direct, special advancement of education, with a single view to the agricultural interests.

I need hardly remark that to this end, the farmer *needs* as high talent for his use, and as extensive knowledge as is needful for any vocation on the earth.

These are the means we must use, and probably the course we must pursue to cause our class to hold the elevation to which it is entitled, to use mind and intellect in the application of our power, securing the highest condition of man in this world, and the best preparation for comprehending and entering upon those duties which lead to perfect happiness in the world to come.

To produce this result, we have need for *order* and *system*, or in other words, union and systematic action, as a class of men pursuing a vocation distinct from all others,—more important than all others,—and without which, all art, all science would decay. AGRICOLA.
Seneca County.

TAN CONVERTED TO MANURE.—This, it is said, may be successfully accomplished, by placing alternate layers of spent tan and lime, the former 2 feet thick, the latter 3 inches—remaining thus for two years.

Farming in Missouri, &c.

Eds. Cultivator—Time and inclination at length concurring, I proceed to comply with your request, made more than a year ago; and undertake the task of giving you an impartial account of our section of the country, its advantages and disadvantages, location, soil, products, mode of farming, &c.

Cooper county, of which Boonville, a village of some 2,000 inhabitants, is the county seat, is situated very near the centre of the state, about 160 miles by land, and 200 by water, west of St. Louis, on the southern bank of the Missouri river.

That river, though one of the muddiest and most turbulent streams in the known world, filled with snags and sand-bars, rendering its navigation difficult and dangerous, is, notwithstanding, of incalculable benefit to the farmers in its vicinity, in conveying their produce to market.

We are all on the tip-toe of expectation at present, in looking out for the great Pacific rail-road, which we calculate will run somewheres near here, if it ever runs at all. It is expected to give a great impetus to the business of farming, when it does come. How that may be I am unable to say, but we certainly need something to stir us up.

The timber and prairie are more equally divided in this county than in almost any other in the state,—decidedly more so than in any other possessing the same advantages of productive soil and convenience to market. When I say convenience to market, understand me as speaking comparatively. Our market here, at best, is very inconvenient, unless we avail ourselves of the home market, and that is limited, besides being very uncertain and fluctuating. The soil in this county is not so deep as in some of the other counties above, on and near the river, nor is it so well adapted to the growth of hemp and tobacco as some of them, but for Indian corn, oats, red and white clover, timothy, orchard and blue-grass, melons, pumpkins and squashes, sweet and Irish potatoes, turnips and beets, it is not excelled by any section I have seen, and my observation has extended over more than half the states in the union, and particularly over the west.

Particular localities may beat it in the production of some particular article named above, as the Wabash and Sciota valleys in Indian corn, some parts of Illinois in oats, and some of the southern states in sweet potatoes, but taken in the mass I believe we can compete with any portion of the continent. Wheat is a very uncertain crop here, on account of winter-killing, though when it escapes, we get good crops.

Buckwheat, barley and rye, do pretty well, though they are not cultivated to a very great extent. All kinds of fruits suited to our climate, such as apples, pears, peaches, plums, grapes, strawberries, &c., succeed admirably. Our prairies are covered with the wild strawberry, while our forests abound with wild plums, grapes and paw-paws, black-berries, raspberries, persimmons, &c., besides a variety of nuts, such as the hazel, hickory, black and white walnut, &c.

The principal articles of export from this section of the state, are hemp, tobacco, mules and horses, beef cattle, pork and wheat. The articles of hemp, tobacco and wheat, and most of the pork, is shipped to St. Louis. Our principal market for mules and horses is Louisiana, and for a few years past, Texas—a distance of from 400 to 600 miles, the nearest point, when taken by land, and 1500 or 2000 when carried by water. Last spring, however, the California emigration created a market for most of our surplus mules and oxen nearer home. The annual caravans leaving for California, together with the constantly increasing trade from this state across the plains to Santa Fe, will be very apt to cause an increased demand for mules and oxen for many years to come. Our stall-fed cattle are principally driven to St. Louis and slaughtered. But immense droves of 3, 4 and 5 year old steers, are annually bought up in this section and driven to Illinois, Indiana, Ohio and Virginia, there fattened, and then driven to Baltimore and other eastern markets. Our prairies afford fine grazing, and when they are eat out, the prairie grass is replaced by blue grass and white clover.

Farming here is conducted on the regular *skinning* system—taking everything and returning nothing, and new as the country is, numbers of farms are beginning to feel and show the effects of it. Crops on land that has been in cultivation from 10 to 15 and 20 years, are beginning to grow "small by degrees, and beautifully less." There seems to be a continual struggle with each farmer to have longer strings of fence, bigger fields, and more ground in corn than his neighbor. The result of which struggle, in conjunction with the ease with which land is brought into cultivation in the prairie convenient to timber, is that most of the farmers in this country *scratch* over a great deal of ground but *cultivate* none. Instead, however, of endeavoring to extricate themselves from their difficulties in the most reasonable way possible, that of ceasing to enlarge their farms and sowing grass seed until they are reduced to a manageable size, the cry is still more land, more corn. It is corn, corn, corn,—nothing but corn.

I know numbers of farmers who cultivate from 50 to 150 acres of land, who have not exceeded 5 acres of grass on their farms, and many of them not a spire except what nature has sown for them. This, too, in one of the best grass countries in the world, and where the same labor expended in the cultivation and sowing of timothy and clover hay, will feed fully double the stock that it would in raising corn. It is true that we have some honorable exceptions to this rule, but I am sorry to say not many more than one sufficient to prove the rule.

We have some excellent stock, but as a general rule the stock here is exceedingly scrubby. The generally received opinion amongst the sovereigns here, is, that a big corn-crib, well filled, makes fine stock, and consequently they are indifferent about improving it by procuring the improved breeds of cattle, hogs and sheep, to breed from. There has been more done in improving the breed of hogs than anything else, but there is great room for improvement yet, even with them.

The wheat crop has generally been very light here this season,—the rust destroying thousands of acres that had escaped the winter. I didn't cut a head of mine, which, but for the rust, would have made a tolerably fair crop.

Oats and timothy were fine. Owing to the long-continued wet weather and backwardness of the spring, the corn crop is rather backward, and in some parts of the state the prospect is very gloomy,—the wet weather preventing the planting of thousands of acres, as well as the cultivation of a great deal after it was planted. The prospect in this county bids fair for an average crop, and considering the unfavorableness of the season it looks very well, but being more backward, and much more foul than usual, a drought now would cut it short.

As to manuring, the idea is looked on as preposterous! "What! manure our rich virgin soil that only requires planting, and a plowing or two to produce ten barrels of corn to the acre! Absurd. That was not what we left our old worn out lands for—away back in old Virginia, old Kentucky, or Tennessee, as the case may be, where we had to tug and toil, scratch and scrape, haul manure all winter, and plough all summer, and

then scarcely make enough to keep soul and body together! Let them haul manure that like it, we're not in that line of business."

That's the way they talk. Just "go it" my good fellow. Stick to that, and carry it out, and in less than 30 years you, or some of your children, will be using similar language away off in some nook of the Rocky mountains, or on the Pacific coast, in California or Oregon, or it may be in some prospective territory not yet "annexed."

Take the state over, and I have no idea that one farmer out of fifty has ever hauled a load of manure to his corn field since he has been in the state. I have doubts, even, whether one in a hundred has ever done it. Year after year the manure accumulates in their lots and crowds their stables and barns, a perfect nuisance, rotting down their barns and rendering it impossible for the stock confined in the lots to find a dry place to lie down in wet weather. So, of course, they have either to stand up or lie in the mud.

Food is plenty; an abundance is given them; they eat a little, perhaps a fourth of what is given; run over and tramp the balance in the mud, and then for want of some dry place to lie down and ruminate they stand knee deep in mud and shiver, while their owner wonders why his cattle don't thrive better!

Some, however, have the foresight and sagacity to avoid all this, by building their stables, barns, &c., over or contiguous to a ravine, by which they are drained, so that each shower abates the nuisance, and the lucky farmer is not troubled with muddy lots and rotting barns. But while this process is going on, how is the corn field progressing? Is it increasing in fertility, or maintaining its original productiveness? One might suppose from the way in which the "farmers bank," as the manure heap has been aptly styled, has been neglected, the spend-thrift manner in which the very essence of fertility is squandred, that the fertility of the soil was inexhaustible, and that the application of manure would be a work of supererogation—labor thrown away. But is such the fact?

If I might be allowed to express an opinion, I should say it was not. Although this state was settled as it were but yesterday, there are plenty of farms now within its limits that are literally worn out. Jas. R. Hammond. *Shandy Hall, Cooper county, Mo., Aug. 7th, 1849.*

The Veterinary Department.

Disease of Horses' Feet.

Eds. Cultivator—With your permission I wish to present the readers of your valuable journal with a few remarks on a disease of horses feet, which has been unusually prevalent during the last spring and summer. The disorder we are about to consider is known among "veterinarians" by the technical term navicular thritis, or navicular lameness.

The cause most fertile in the production of this disease is prolonged rest in the stable, the high temperature of the stable inducing dryness of the hoof and absorption of the sensitive, fatty frog, the horny part contracts, the sole becomes hard, thick, and concave; and if to these be added circumstances which still further favor the drying of the hoof, as the late long continued drouth, in many cases the elevation of the sole becomes permanent. If the horse is now taken out and called upon to perform severe exertion, his feet being highly predisposed, are very liable to become the seat of inflammatory action, either in an acute or chronic character.

To occasional causes, belong galloping upon rough, uneven ground, sudden springs, during a hard trot, false steps in which the toes have to support an unusual amount of weight until the heels can reach the ground. It is stated by Youatt, that Prof. Coleman used to say with regard to shoeing, there were only two principles to be impressed upon the mind. "1st, The frog must receive pressure; 2nd, The sole must not." In fact I believe at the present day it is generally admitted as an established truth, that a certain degree of pressure to the frog is necessary, in order to keep it in a state of health; yet in the face of all this, we find more than one half our best horses shod with "calkins," which not only prevent pressure upon the frog, but give unsteadiness to the horse's action. Even in going down hill they place the limb in anything but a favorable position; they prop up the heels, and give the fetlock joint a forward inclination, and throw nearly the whole weight upon the toe of the foot. The symptoms which indicate navicular lameness, are a short, cautious step, most of the weight being thrown upon the toe, both in the stable and on the road. Generally the horse walks but little lame, although very much so in a trot. The sole of the foot is unusually concave, and the clefts are often very deep.

The treatment of course must vary with the stage and state in which we find the foot. In a recent case, after removing the shoe, pare the sole and rasp the crust thin at both quarters of the hoof, to diminish the pressure on the internal parts of the foot as much as possible, and then envelope the whole foot in cloths soaked in cold water, or in an ample poultice of bran or linseed meal, kept constantly moist with cold water. The poultice must be renewed once in twelve hours. Next, a blister, taking in the whole of the pastern and coronet, may be tried; and when the heels and quarters (if they were reduced by the rasp, &c.,) are sufficiently strong, a spring or thick heeled shoe (without calkins) should be carefully tacked on to the foot. This with a piece of felt or leather placed between the shoe and the crust, will (as much as possible) keep the injured part in a state of repose. The sole of the foot should be covered occasionally with tar and salt. If sand collects under the leather it (the leather) must be cut out close to the inner rim of the shoe. H. S. Copeman, V. S. *Utica, N. Y.*

Osage Orange Hedges.—There can be no question that these form the most formidable protection to orchards against thieves that has been discovered; but according to the results of the experiments at Mount Airy Agricultural Institute, Pa., they are not well adapted to small lots of land in tillage, the growth of corn and turnips having been greatly retarded by the influence of the roots for 10 or 12 feet on each side of the hedge.

Purity of Salt.—According to Dr. Beck's analysis,—

1000	parts	Syracuse coarse salt	contain	991	pure	salt.
1000	"	" dairy salt	"	974	"	"
1000	"	Turk's Island salt	"	984	"	"
1000	"	Cheshire rock salt	"	986	"	"

Depth and Altitude of the Lakes.—According to Dr. Drake, St. Clair is 20 feet, Erie 84, Ontario 500, Superior 900, Huron and Michigan 1,000. Off Saginaw Bay, in Lake Huron, 1,800 feet of line have been let down without reaching bottom.

Lake Ontario is 232 feet above tide water; Erie 333 feet above Ontario; St. Clair 6 feet above Erie; Huron and Michigan 13 feet above St. Clair; and Superior 44 feet higher.

Huron can never be drained; for while its surface is 684 feet above the surface of the sea, its bottom in Saginaw Bay is more than 1,100 below the same level.

New-York State Agricultural Society.

State Fair at Syracuse.

The Ninth Annual Show and Fair of the New-York State Agricultural Society took place at Syracuse, on the 11th, 12th and 13th of September. Considered as a whole, the display may be said to have surpassed all those of former years. The people were out *en masse;* the number which entered the show-grounds could not have been less than sixty-five to seventy thousand.

The receipts for tickets and memberships, were eight thousand fifty-five dollars and fifty-five cents. The assemblage was gathered chiefly from our own State, though there were thousands from the various sister States, from Maine to Texas, and from the Canadas.

This association is evidently exerting an important influence—an influence which is not only felt throughout the whole of our own country, but is even affecting our national relations. It is opening and cultivating an acquaintance abroad, which cannot fail to be favorable to the promotion of peace, and a proper regard to our character as a people. At home, its annual exhibitions are justly looked upon as the most important gatherings of our citizens. On these occasions, men of all sects and parties mingle harmoniously together, mutually ardent for the advancement of a common object—the real prosperity of the country. Here friendships are formed by which party and personal animosities are worn away, and the people are brought to look, unbiassed, at those principles which concern their welfare.

The show-grounds were well situated. They were on a hill of sufficient elevation to give a fine view of the surrounding country, embracing an area of twenty-five to thirty miles. The field, which contained upwards of twenty acres, had some inequality of surface, but not more, perhaps, than was favorable to general picturesqueness. As at Buffalo, the cattle were placed in a grove, where they were protected from the scorching heat of the sun. The general arrangement of the classes was very convenient, and does much credit to Messrs. Sotham & Fuller, who had charge of this department. Stalls were provided on the ground for about seventy horses, but from the great number exhibited, it was impossible to accommodate in this way, but a small proportion of the whole.

We have only room at present for the following notices:

Of Horses there were fine specimens of the different classes; but as the writer was closely engaged in other departments, he had not an opportunity of seeing all the animals exhibited. Of blood horses, we noticed imported Consternation, owned by J. B. Burnet, Esq., of Syracuse; Young Alexander, owned by Mr. Ireland, of Albany, and Lance, owned by Mr. Huff, of Buffalo.

Of the Morgan stock, there were some excellent specimens from this State, and from New Hampshire and Vermont. The Gifford Morgan, twenty-three years old, owned by Mr. Wier, of Walpole, N. H., came over to the fair for the third time, not for premium; but just to show that time has not yet left on him any mark of age or decrepitude. Morgan Hunter, owned by Ackley & Gilbert, of East Hamilton, Madison county, N. Y., the General Gifford, exhibited by G. A. Mason, of Jordan, N. Y., and the Major Gifford, exhibited by Mr. Blodgett, of Chelsea, Vt., are valuable animals, closely resembling their sire, the Gifford Morgan. They attracted great attention. A very fine and showy horse, four years old, got by the noted Black Hawk, was exhibited by H. Felton, of Ticonderoga.

We noticed an excellent gray stallion owned by Alex. Maxwell, of Jackson, Washington county. He is a horse of fine action, and handsome appearance. An Irish hunter, imported in 1843, by Mr. Brown, of Johnstown, Fulton county, appears to be a strong and vigorous animal. A five-year-old stallion of his get, owned by Mr. Schermerhorn, of Schenectady, appeared favorably, as did also the horses of Mr. Nottingham, of Palmyra, and Mr. Blakeslee, of Connecticut, and others.

Of draught horses, we noticed several good animals, particularly Honest Tom, owned by Mr. Pettit, of Bridgwater, Oneida county, and Young Alfred. A chestnut stallion from Canada, weighing 1,400 lbs., attracted much attention.

Of colts under three years old, there was a large display, though we were unable to learn particulars in regard to many which deserved notice. Mr. Arthur, of Ticonderoga, Mr. Hall, of Bridport, Vt., and Mr. Austin, of Orwell, Vt., each exhibited a fine two-year-old, by Black Hawk. All showed remarkable symmetry and action for their ages. Mr. Burnet, of Syracuse, showed a very handsome colt, by Consternation.

The Cattle were more numerous, and in general of better quality than have ever before been offered at our shows. The greatest display was by the Devons. The Short-horns were better, on the whole, than at our shows for several years past. Comparing the different classes, we think the Herefords and Devons were more *evenly* good than the Short-horns, though among the latter there were some splendid animals.

Of Short-horned bulls, we noticed Col. Sherwood's imported 3d Duke of Cambridge, a bull of excellent points; a fine bull exhibited by Mr. Bell, of Morrisania, Westchester county; a yearling bull offered by Mr. Morris, of the latter place. There were several fine cows and heifers in this class from the herds of Col. Sherwood, of Auburn, Mr. S. P. Chapman, of Clockville, Madison county, Mr. Morris, and Mr. Rone, of Mount Morris, Livingston county.

Of Herefords, the principal exhibitors were Mr. Sotham, of Black Rock, and the Messrs. Bingham, of Vermont. There were several well-shaped bulls, and some excellent cows—all first-rate *handlers*—in this class.

The Devons were out in greater numbers than at any previous show. Mr. Washbon, of Butternuts, Otsego county, had forty head on the ground. Mr. Beck, of Sheldon, Wyoming county, had a numerous delegation from his justly esteemed herd; and specimens of the breed in smaller numbers were shown by various individuals. Among bulls, the one exhibited by Mr. Gapper, of Canada, could not fail to attract attention. He was, beyond question, one of the most complete and finished animals ever exhibited at our shows; and we think the breeders of Devons are under special obligations to Mr. Gapper, for exhibiting him on this occasion. Good bulls in this class were shown by Mr. Remington, of Sennett, Mr. Van Rensselaer, and Mr. Washbon, of Butternuts, Mr. Law, of Meredith, Delaware county, Mr. Hamlin, of Aurora, Erie county, Mr. Earle, of Salina, and others. Fine cows and heifers were offered by Mr. Washbon, Mr. Beck, Mr. A. Stevens, Mr. Van Rensselaer, Mr. Baker, and others, whose names we did not learn.

In Ayrshires, the competition was not large; but an excellent bull and some cows of first rate quality were shown by Mr. Prentice, of Albany. We noticed, also, some good animals in this class offered by Mr. Morris, of Morrisania.

The fat cattle were numerous, and generally excellent. A fine pair of Durham oxen, five years old, weighing 5,000 lbs., were shown by Mr. Sheldon of Sennett, Cayuga county; a fine pair of the same breed, four years old, were offered by Mr. Rone, of Mount Morris, who also exhibited two remarkably fat cows, nearly full blood Durhams. Mr. Leach, of Eaton, Madison county, showed a very fine cow, four years old,

weighing 2100 lbs., a cross of the Durham, and a pair of large oxen. Mr. Nowlan, of Sennett, showed a pair of cross-bred Durhams, six years old, weighing 5236—very fat. Mr. Doty, of Wyoming county, showed a very large pair of red oxen, one of which was a very fine animal. A three-year old Durham heifer, offered by Mr. Barber, of Cortlandville, attracted much and deserved commendation. She is an animal of uncommon symmetry, and was not excelled in the essential qualities of a *grazier* by any animal on the grounds.

Among the *grass-fed* cattle we noticed a beautiful pair of Devon oxen, offered by Mr. Beck. For lightness of offal and quality of flesh they were justly admired, and showed what may be expected of good Devons when turned to beef.

The working oxen we had not an opportunity of examining particularly. There was a team of twenty yoke from Homer, Cortland county, among which we noticed several yoke of good appearance. Mr. Sheldon, of Sennett, Cayuga county, had, as usual, several yoke of oxen and steers, of good form, and in fine condition. Mr. Church, of Vernon, Oneida county, showed a pair of four-year-old cattle, seven-eighths Devon, of good form, but rather small size. They had been trained with great care by Mr. Church's son, and exhibited a perfection of dicipline, and a degree of intelligence which we have never seen equalled in their species. Mr. Washbon, of Butternuts, and Mr. Bundy, of Otego, each exhibited several pair of beautiful cattle, three and four years old, half Devon, by a bull bred by Mr. Patterson, of Baltimore.

Sheep of all classes were well represented. The large French Merinos were shown chiefly by Messrs. Bingham, of Vermont. Other Merinos of less size of carcass, but finer quality of wool, were shown by Col. Sherwood, of Auburn, Mr. J. L. Randall, of Lysander, Mr. Blakeslee, of Connecticut, and Mr. Robinson, of Vermont. Fine Saxons were shown by Mr. Church and Mr. Crocker, of Vernon, and Mr. L. G. Bingham, of Vermont. Some excellent sheep, a cross of the Saxon and Merino, were exhibited by Mr. Curtis, of Canaan, Columbia county. South Downs of good quality were shown by Col. Sherwood, and Mr. Wakeman, of Herkimer. Of long-wooled breeds, there were some excellent specimens of Leicesters shown by Mr. Miller, of Canada. Mr. Allen, of Black Rock, showed some good Cotswolds.

The show of Swine, though better than that of some years, was not equal to the best. There were some good specimens of the Leicester breed, and of that breed crossed with the Berkshires. We noticed some young pigs bred by Mr. Henry Parsons, of Guelph, Canada West. They were a variety which Mr. Parsons has been several years in producing from a cross of the Sussex and Russian grass breed. They are small in bone, of handsome form, and give an excellent quality of flesh.

The show of Poultry was comparatively meagre, and devoid of that interest which has for several years attached to this department. We noticed several coops of large fowls of the Malay race; Mr. Platt, of Albany, made quite a display of beautiful Java Bantams. They formed the most attractive feature of the poultry show. There were a few specimens Bremen geese, Muscovy and top-knot ducks.

Dairy Products were less in quantity than at Buffalo; but the display was, notwithstanding, creditable in extent; and we learned from the committee having charge of this department, that the quality of the butter and cheese was generally excellent. We observed that there was considerable competition from the principal dairy districts in this state, and there were several samples of cheese from Ohio. The lots being simply designated by numbers, we were unable to learn the names of the competitors, except in a few instances.

The Implement Department was admirably filled, forming a display exceeding anything of the kind which we have ever before seen. We shall notice the articles more particularly hereafter. The principal exhibitors were Messrs. Emery and Wheeler, of Albany, Burrall, of Geneva, Rapalje and Briggs, of Rochester, Starbuck, of Troy, Eddy, of Union Village, Washington county.

The Plowing Match was contested by eighteen teams. The writer was not present at the match, but from having seen the ground after the work was done, is enabled to say that it was done in a manner superior to that of any he has before witnessed at the matches under the auspices of the Society.

"Mechanics' Hall" was filled with a multitude of articles, to notice all of which would require much more space than we can spare. We noticed a "Dairy Steamer" for warming and heating milk in cheese-dairies. Certificates in relation to its operation stated that steam sufficient for warming the milk of sixty cows can be got up in thirty minutes. It appears to be a useful article. It was exhibited by J. H. Bushnell, Utica.

A great number of stoves were exhibited, embracing all the improvements in this line. Mynderse & Co., of Seneca Falls, exhibited stoves with Race's regulator attached, as represented in a cut on another page of this number. It is a valuable invention. Dudley & Co., of Buffalo, exhibited a large assortment of stoves, the largest of which (Hathaway's) is capable of doing the work for the largest hotels. The price is $300. A double acting force-pump shown by Downs, Mynderse & Co., Seneca Falls, appears to be an improvement on pumps heretofore in use.

Mr. Wheeler, of Albany, exhibited Dix's anti-friction press. It is a powerful machine, being capable, by the power of one man, of cutting teeth from cold cast-steel plates, suitable for saw-mill saws.

A sewing machine, offered by Mowry & Johnson, New York, was a curiosity. It sowed two thicknesses of cloth in a firm manner at the rate of three feet per minute. The price of the machine is $100.

In the "Manufacturer's Hall" the display was large and attractive, but from the great crowd of people which constantly filled the building, it was impossible to take particular notes of the articles, and we must refer to the reports of committees. Among the fabrics we noticed broad-cloths, cassimeres, and shawls, manufactured by D. Kellog, Skaneateles. The shawls attracted great attention, and were much sought after by purchasers. His other articles were of a quality that did credit to the manufacturer.

There was a good display of useful articles of household manufacture, and a large number of fancy articles.

In the Fruit and Floral Department, the display was less extensive than in some former years, especially in flowers, which, from the unprecedented drouth which has prevailed in the central and western portions of the state, have not developed themselves in their usual perfection. The size and quality of the fruits, too, has been affected by the same cause. Still the fruits exhibited, were mostly of good quality and fine appearance. Very fine peaches were shown from the neighborhood of Rochester, by Elwanger & Barry, and others. Apples and pears of the most esteemed kinds, were exhibited by B. Hodge and A. Bryant, of Buffalo, J. W. P. Allen, of Oswego, John Morse, Cayuga Bridge; and a very handsome collection from northern and middle Illinois, by Messrs. Harkness, Overman, and Kennicott. Fine specimens of plums were shown by Mr. Denniston, of Albany,—who presented fifty-five varieties from his

own garden; by Dr. H. Wendell, of Albany, by Elwanger & Barry, Rochester, R. Woolworth, H. G. Dickerson, and others.

There were good specimens of grapes shown by Messrs. Langworthy of Rochester, Coppock of Buffalo, Hastings of Clinton, and others.

Of Flowers we noticed specimens, both singly and in bouquets, from J. Wilson, of Albany, Dr. Jackson, of Schenectady—(who exhibited a collection of splendid seedling verbenas of his own raising,) and Mr. Le Couteulx, of Buffalo. The latter gentleman presented several specimens of new variegated asters, of rare character, and most beautiful appearance, which attracted the admiration of all.

Among the curiosities in this department may be mentioned a cornucopia, offered by Mr. Barber, of Homer. Its frame-work was of wire, the exterior tastefully covered with beautiful flowers, and from its internal cavity, the finest and most luscious fruits of various kinds were pouring out. It was an object which received warm commendations.

A very pretty article consisting of a grass bouquet on a moss-covered stand, was much praised for the good taste displayed in its structure. We did not learn the name of the exhibitor.

The show of Vegetables was limited, the prevalence of the drouth being sensibly seen in this department. As usual there were some large pumpkins, one of which weighed 125 lbs. We noticed some samples of seedling potatoes of good size and shape, but did not learn the name of the exhibitor.

The Address by Prof. Johnston was listened to by a very large audience, and was received with much approbation. The subject-matter consisted of two principal divisions. The first embracing a general view of the agriculture of the different countries of Europe; and the second a brief exposition of the principles of agriculture and its connection with the sciences. It was a document of considerable length, and occupied upwards of an hour in the delivery; but the deep interest manifested by the people in the beginning, was maintained to the last, as was indicated by the hearty cheers which greeted the speaker at the close. In a word it may be said that the high reputation which Prof. Johnston had acquired among our people, through his writings, was fully supported by the address; and we cannot but flatter ourselves that the impressions by the first acquaintance have been mutually favorable. Our opportunities for hearing the address would not justify an attempt to give even a synopsis of it, and our readers must be content to wait for its appearance under the sanction of the Society.

Among the distinguised visitors at the fair, were Hon. Henry Clay, of Kentucky, Vice President Fillmore, Gov. Fish, Ex-Gov. Marcy and Lieut. Gov. Patterson, Hon. Frs. Granger, of New York, Gen. Wool, Hon. Mr. Clingman, M. C., from North Carolina, Hon. H. L. Elsworth, of Indiana, and numerous delegates from the Canadas and the Agricultural Associations of the different states of the Union.

Draining.—The full advantages of thorough underdraining are rarely appreciated. An excellent practial farmer in this state, who has laid down several miles of tile drains, thinks that thorough draining will do more to improve the agriculture of New York, than all other improvements [without it] combined. Lands inclining to be wet can be plowed much earlier in the spring, an eminent advantage to some crops,—the plowing can be done with far greater ease,—and one plowing will pulverise the soil as well as three on undrained wet lands. The great advantage is in the vast increase in the amount of crops.

List of Premiums

Awarded at the State Fair at Syracuse.

CATTLE—Short Horns.

Bulls—*Over three years old*—1. To J. M. Sherwood, Auburn, $25.—2. Thomas Bell, Morrisania, $15.—3. S. P. Chapman, Clockville, $5.——*Two years old.*—1. Wm. Fuller, Skaneateles, $20.—2. A. G. Perry, $10.—3. J. B. Burnet, Syracuse, $5.——*Yearlings.*—1. L. G. Morris, Morrisania, $15.—2. S. P. Chapman, $10.—3. Not awarded.——*Calves.*—1. L. G. Morris, $10—2. J. M. Sherwood, Trans. and $3.

Cows.—1. S. P. Chapman, $25.—2. L. G. Morris, $15—3. J. M. Sherwood, $5——*Two years old Heifers.*—1. F. Rotch, Butternuts, $20—2. L. F. Allen, Black Rock, $10—3. F. Rotch, $5——*Yearlings.*—1. Ambrose Stevens, New-York, $15—2. J. M. Sherwood, $10—3. S. P. Chapman, $5.——*Calves*—1. L. F. Allen, $10—2. J. M. Sherwood, Trans. and $3.

DEVONS.

Bulls.—*Over three years old.*—1. R. H. Van Rensselaer, Butternuts, $25—2. R. M. Remington, Sennet, $15—3. Joseph Blakeslee, Westchester, $5——*Two years old.*—1. David S. Earl, Salina, $20—2. H. N. Washbon, Butternuts, $10——*Yearlings.*—1. H. N. Washbon, $15—2. David C. Howe, $10——*Calves.*—1. E. P. Beck, Sheldon, $10—2. H. N. Washbon, Trans. and $3.

Cows.—1. Ambrose Stevens, $25—2. H. N. Washbon, $15—3. E. P. Beck, $5——*Two years old.*—1. L. F. Allen, $20—2. and 3. E. P. Beck, $10 and $5——*Yearlings.*—1. H. N. Washbon, $15—2. E. P. Beck, $10—3. R. H. Van Rensselaer, $5——*Calves.*—1. H. N. Washbon, $10—2. Ambrose Stevens, Trans. and $3.

HEREFORDS.

Bulls.—*Two years old.*—1. Allen Ayrault, Geneseo, $20—2. W. H. Sotham, Black Rock, $10——*Calves.*—1. W. H. Sotham, $10—2. A. Ayrault, Trans. and $3.

Cows.—1. W. H. Sotham, $25—2. A. Ayrault, $15—3. L. F. Allen, $5——*Two years old Heifers.*—1. W. H. Sotham, (for Coquette) $20—2. A. Ayrault, $10——*Yearlings.*—2. W. H. Sotham, (for Jenny Lind.) $10—3. L. F. Allen, $5——*Calves.*—1. L. F. Allen, $10—2. W. H. Sotham, Trans. and $3.

AYRSHIRES.

Bulls.—1. E. P. Prentice, Albany, $25—2. L. G. Morris, $15——*Calves.*—1. E. P. Prentice, $10.

Cows.—1. E. P. Prentice, $25—2. Robert Rone, Mount Morris, $15——*Two years old.*—1. E. P. Prentice, $20——*Yearlings.*—1. E. P. Prentice, $15—2. Robert Rone, $10—3. L. G. Morris, $5——*Calves.*—1. E. P. Prentice, $10.

NATIVE AND CROSS BREEDS.

Cows.—1. David S. Earl, $20—2. S. P. Chapman, $12—3. L. G. Morris, $4——*Two years old.*—1. C. C. Cook, $15—2. D. S. Earl, $10—3. L. S. Bundy, Otego, $3——*Yearlings.*—1. E. Sheldon, Sennet, $10—2. P. B. Williams, $8—3. R. M. Remington, $3——*Calves.*—1. C. Merriman, $3—2. S. C. Parker, Trans.

WORKING OXEN.

Best team of 20 yoke from any county, to Cortland county, $50——*Single yoke.*—1. E. Sheldon, $25—2. John Bryden, $15—3. Hiram Cliff, Trans. and $5——*Best trained Cattle.*—J. B. R. Church, Silver Medal.

STEERS.

Three years old.—1. H. H. Eastman, $10—2. E. W. Sheldon, $8—3. J. N. Clyde, Trans. and $3——*Two years old.*—1. B. H. Streeter, $10—2. E. W. Sheldon, $8—3. J. N. Clyde, Trans. and $3——*Yearlings.*—1. James H. Sherrill, $8—2. H. Sheldon, $5—3. J. Muir, Trans. and $3.

FAT CATTLE.

Pair of Oxen.—1. L. Doty, $25—2. E. Sheldon, $15—3. Asa Nowlan, Avon, $10——*Single Ox.*—1. E. Munson, $15—2. H. Sheldon, $10——*Cow.*—1. Clement Leach, $15—2. Robert Rone, $10——*Pair of Steers.*—1. Robert Rone, $15——*Heifers.*—1. J. Barber, Homer, $10.

Animals fattened on Hay and Grass only.—*Pair of Oxen.*—1. E. P. Beck, $20—2. Israel Boies, Cortland, $12——*Single Steers.*—1. E. Sheldon, $8—2. John Reeves, $3—3. J. B. Burnet, Trans.——*Cows.*—1. Robert Allen, $10.

FOREIGN CATTLE.

Best Hereford bull, L. G. Bingham, Williston, Vermont, $25—Best Devon bull, R. C. Gapper, Canada, $25—Best yearling bull, M. Bingham, Vermont, $10—Best bull calf, R. C. Gapper, $5.

Best Cow—1. To "Sally," $25, and 2. to "Cherry," $15, both Herefords and owned by L. G. Bingham, Vermont.

HORSES.

For all Work.—*Stallions.*—1. Wm. Ferguson, $20—2. Nottingham & Allen, Palmyra, $12—3. David Osgood, $8—4. O. Howland, Youatt——*Mare and Colt.*—1. Reuben H. Rust, $20—2. Edward Munson, $12—3. Anthony Decker, $8—4. Wm. Prior, Youatt.

For Draught.—*Stallions.*—1. Nottingham & Allen, $20—2. Cornelius Schobey, $12—3. John D. Spinner, Herkimer, $8—4. J. S. Thompson, Youatt.——*Mare and Colt.*—2. David Wemple, $12—4. J. H Lamberson, Youatt.

Blood—*Stallions.*—1. W. W. Huff, $20—2. Clark & Earl, $12—3. Simon Schermerhorn, $8—4. Pardon Austin, Youatt. To "Consternation," owned by J. B. Burnet, Certificate as the best in this class, he having heretofore been awarded the first prize.

Three years old.—*Stallions.*—1. A. Butler, $15—2. E. Moore, $10—3. H. S. Marsh, Youatt—4. Wm. Norton, Trans.——*Mares.*—1. Elias Thomas, $15.

Two years old.—*Stallions*—1. F. Brown, $10—2. R. G. Arthur, Ticonderoga, $5—3. J. Van Hoesen, Trans.——*Mares.*—1. John J. Boshart, $10—2. N. R. Williams, $5—3. J. N. Holmes, Trans.

Yearlings.—*Stallions.*—1. J. Muir, $5—2. J. Houseufrats, Youatt—3. Nathan Soule, Trans.——*Mares.*—1. W. B Van Slyke, $5—2. S. A. Gilbert, Youatt.

MATCHED.—1. H. Gould, $15—2. Thomas S. Clark, $10—3. Amos Lewis, $8—4. H. Otis, $5.

GELDINGS.—Certificate to Arden Merrill, Rose.—1. H. L. Barker, $10—2. S. S. Vaughn, $8—3. John Legg, $6—4. Nelson Boomer, $4.

FOREIGN.—*Stallions*—1. L. D. Harlow, Vermont, $20—2. J. Ashford, Vermont, $15—3. Calvin Blodgett, Vermont, $8—4. G. F. Wheeler, Youatt.

SHEEP.

LONG WOOLED.—*Bucks, over two years old.*—1. Geo. Swails, $10—2. L. F. Allen, $8—3. Charles N. Hudson, $5——*Under two years old.*—1. Thomas Terry, $10—2. Wm. Rathbone, $8—3. C. N. Hudson, $5——*Pen of five ewes, over two years.*—1. Thomas Terry, $10—2. Wm. Rathbone, $8——*Under two years.*—1. Geo. Swails, $10——*Five buck Lambs.*—1. James Bicknell, $8—2. Thomas Terry, Am. Shepherd and $3——*Five Ewe Lambs.*—1. C. N. Hudson, $8.

MIDDLE WOOLED.—*Bucks, over two years old.*—1. Z. B. Wakeman, Herkimer, $10—2. J. M. Sherwood, $8—3. L. F. Allen, $5——*Uunder two years.*—1. J. M. Sherwood, $10—2. Wm. Robson, $8—3. Z. B. Wakeman, $5——*Pen of five Ewes, over two years.*—1. Wm. Robson, $10—2. Z. B. Wakeman, $8—3. J. M. Sherwood, $5——*Under two years.*—1. Z. B. Wakeman, $10—3. E. R. Dix. $5——*Pen of five buck Lambs.*—1. Z. B. Wakeman, $8—2. Wm. Robson, Am. Shepherd and $3——*Ewe Lambs.*—1. Z. B. Wakeman, $8—2. Wm. Robson, Am. Shepherd and $3.

MERINOS.—*Bucks, over two years.*—1. N. M. Dart, $10—2. Jos. Blakeslee, $8—3. J. M. Sherwood, $5——*Under two years.*—1. J. D. Patterson, Westfield, $10—2. D. S. Curtis, $8—3. J. M. Sherwood, $5——*Pen of Ewes, over two years.*—1. J. M. Sherwood, $10—2. N. M. Dart, $8—3. Randall & Milliman, $5——*Under two years.* 1. J. Blakeslee, $10.

SAXONS.—*Bucks, over two years.*—1. S. H. Church, Vernon, $10—2. S. B. Crocker, Vernon, $8—3. S. H. Church, $5——*Under two years.*—1. S. B. Crocker, $10—2. R. I. Ransom, $8—3. Joseph Haswell, $5——*Pen of Ewes, over two years.*—1. S. H. Church, $10—2. S. B. Crocker, $8—3. Randall & Milliman, $5——*Under two years.*—1. R. I. Ransom, $10—2. S. H. Church, $8—3. Randall & Milliman, $5.

THE HARTFORD PREMIUM.—For this prize of $100, there was but one entry, that of A. L. Bingham, of Cornwall, Vermont, to whom it was awarded.

FOREIGN.—*Long Wooled.*—To George Miller, of Canada, for best Buck, $10—and also for best pens of Buck and Ewe Lambs, $5 on each——*Merinos.*—Best Buck, to E. Robinson, of Vermont, $10 For best five Ewes, to M. Bingham, of Cornwall, Vt., and to E. Robinson, $5 each. The committee recommend a diploma to L. G. Bingham, fo two Ewes.

FAT SHEEP.

LONG WOOLS.—*Over two years.*—1st. $5, and 2d. $3, to J. M. Sherwood——*Under two years.*—1. Z. B. Wakeman, $5—3. Thos. Terry, Am. Shepherd.

MIDDLE WOOLS.—*Over two years.*—1st, 2d and 3d, to J. Reeves, $5, $3, and Am. Shepherd.

SHEPHERDS' DOG.

1. To M. Bingham, Vermont. $5.

SWINE.

BOARS.—*Over two years.*—2. H. N. Washbon. $5——*Yearlings.*—1. James Gilkeson, $10—2. David Preston, $5—3. B. Williams, $5—*Six months.*—2. C. R. Nichols. $3.

SOWS.—*Yearlings.*—2. Franklin Thayer, $3.

PIGS.—1. Rufus Cossitt, $10—2. H. N. Washbon, $5.

POULTRY.

FOWLS.—Best Polands, to J. S. Chesebrough, $3—Best Large fowls, to John J. Boshart, $3—Java Bantams, to E. Platt, Albany, $3.

MUSCOVY DUCKS.—Best, to Charles N. Hudson, $3.

GEESE.—Best large, to David Cossitt. $3.

FARM IMPLEMENTS, &c.

PLOWS.—The committee on Plows are to have another meeting, before they make their decision.

Best Farm Wagon, D. W. Seeley, $5.
Best Harrow, A. H. Fitch, $3.
Best Corn Cultivator, Jeremiah Fink, $3.
Best Fanning Mill, Jacob Clapper, $5.
Best Corn Stalk Cutter, J. C. Rich, $3.
Best Straw Cutter, J. C. Rich, $3.
Best Corn and Cob Crusher, H. L. Emery, $5.
Best Clover Machine. Rapalje & Briggs, Rochester, $5.
Best Ox Cart. Paris Barber, Homer, $3.
Best Horse Rake, R. H. Chase, $2.
Best Ox yoke, Gideon Hotchkiss, $2.
Best Carriage Harness, Moses Cherry, $3.
Best Saddle and Bridle, B. Suit, $2.
Best Churn, E. R. Dix, $2.
Best Dozen Axes, D. R. Barton, Rochester, $2.
Best Cheese Press, L. Raymond, $2.
Best Grain Cradle, Chas. Clow, $2.
Best Six Hand Rakes, H. L. Emery, $2.
Best Six Hay Forks, J. Vanorman, $2.
Best Six Grass Scythes, H. C. White, $2.
Best Six Cradle Scythes, Rapalje & Briggs, $2.
Best Six Manure Forks, Rapalje & Briggs, $2.
Best Hay Rigging, J. N. Ransom, $2.
Best Six Dozen Corn Brooms, G. W. S. Brownson, $2.
Best Horse Power, L. B. Benton, Penn Yan, $5.
Best Threshing Machine, B. G. Hathaway, $10.
Best Seed Planter, Rapalje & Briggs, $3.
Best Wheat Drill, Aaron Palmer, Diploma.
Best Grain Drill, with apparatus for depositing the manure, Henry Hoffman, Diploma.
Best Broad Cast Sower, Silas S. Sage, Diploma.
Best Wheat Cultivator, D. B. Rogers, Diploma.
Best Portable Saw Mill, H. L. Emery, Diploma.
Best Corn Sheller for Horse Power, H. L. Emery, Diploma.
Best Corn Sheller for Hand Power, Harris & Carter, Diploma.
Best Show of Agricultural Implements, Rapalje & Briggs, Diploma and $20.

Best Show of Agricultural Implements made in the State, by or under the supervision of the exhibitor, E. J. Burrall, Geneva, Diploma and $20.

The collection of Implements by H. L. Emery, are recommended to the Society as worthy of special notice, for their excellent quality and finish.

H. E. Smith, for Horse Power, Diploma.
Best Saddle, R. T. Norgrove, Syracuse, Silver Medal.
Sausage Meat Cutter, Burdick & Cushing, Diploma.

PLOWING MATCH.

1. To E. Davis, Watertown, $10—2. W. G. Brainerd, Rome, $8—3. Samuel Phillips, $5—4. H. D. Preston, Elbridge, $5.

The last volume of the Transactions of the Society, was awarded to Samuel Lyderman, Geneva; Enoch Marks, Onondaga; O. Howland, Owasco; Thomas Miller, Homer; J. F. Maher, Clay; Wm. Miller, Onondaga; Robert Taylor, Skaneateles; Thomas Mix, Auburn; N. Knitten, Scipio; John Baker; J. Porter, Onon. Hill; J. T. Hill, Lenox; Wm. Heming and John Morris, Onondaga.

CHEESE.

100 *lbs. less than one year old.*—1. R. D. Prown, Fairfield, $15—2. P. Carter, Lysander, $10—3. Samuel Mathews, Litchfield, $5—4. James P. Hitchcock, Truxton, Trans.

Messrs. Dolph & Barber, of Richmond, Ohio, exhibited a lot of "English Dairy" Cheese, very fine, for which they were awarded a Diploma.

BUTTER.

For the best and largest quantity, made from five cows in thirty days, to Nelson Van Ness, $25—2. To John Holbert, $15.

Made in June.—1. John Shattuck, $10—2. John F. Clark, $5—3. Abram Adams, Trans.

Made at any time.—1. Horace Clapp, $15—2. John Holbert, $10—3. John Shattuck, $5—4. Noah Hitchcock, Jr., Trans.

Made by Girls.—1. Miss Bardwell, Otisco, Silver Milk Cup—2. Misses Van Ness, Mayville, pair of Butter-knives—3. Miss M. E. Hopkins, Cortlandville, set of Tea-spoons.

MAPLE SUGAR.

1. Peter Mitchell, $10—2. Charles W. Taylor, $5—3. Luman Shepherd, $3—4. E. R. Dix. Trans.

DOMESTIC MANUFACTURES.

Woolen Blankets.—1. G. W. Henry, $6—2. Mrs. B. R. Voorhees, $4—3. N. M. Coburn, $2.

Flannel.—1. G. W. Henry, $6—2. Chester Clark, $4—3. C. Lawrence, $2.

Woolen Cloth.—1. W. Baker, $10—2. Mrs. Voorhees, $8—3. S. W. Abbott, $3.

Woolen Carpets.—1. W. E. Talman, $10—2. J. Conger, $8—3. S. Goodell, $3.

Rag Carpet.—1. A. A. Sweet, $5—2. Caroline Tice, $4—3. Betsey Hoffman, Trans.

Hearth Rugs.—1. E. Sheldon, $5—2. Misses J. and M. Robb, $4—3. Miss J. M. Lathrop, $3—4. Mrs. H. Wier, $2.

For pair Kersey Woolen Blankets.—To Mrs. J. W. Collins, $4.

For Double Carpet Coverlids.—1. Wm. Wright, $5—2. L. T. Marshall, $4—3. Wm. Wright, $3—4. Mrs. H. Wier, $2—5. J. E. Diderman, Trans.

For 15 Yards Kersey.—1. and 2. Mrs. J. Harrold, $5 and $4—3. Mrs. H. Wier. $2.

For Knit Woolen Stockings.—1. H. B. Lawton, $2—2. Horace Clarke, Trans.

For Wove Woolen Stockings.—1. Mrs. J. B. Noyes, $2—2. Mrs. S. H. Church, Trans.

For Woolen Fringe Mittens.—1. C. Lawrence, $2—2. H. Clarke, Trans.

For Pair of Gloves, to Mrs. J. P. Noyes, Diploma.

For Pair Lady's Mittens, Mrs. L. T. Marshall, Diploma.

For Buckskin Mittens, very superior, to Z. & W. Case, Gloversville, Diploma. (*To be continued.*)

CORN FODDER AND PUMPKINS.—J. H. Jenne, in the Boston Cultivator, says that two cows, in fine order, fed on corn-fodder, and with each a large pumpkin a day, gave fourteen quarts of milk per day. When the corn-fodder and pumpkins were gone, they were fed on good hay, when they fell off to seven quarts per day.

HENS EATING THEIR EGGS.—Hens, it is well known, when kept shut up, are very apt to eat their eggs. The best preventive is to keep them well supplied with lime and gravel, and with *meat* in some form. The nest should be so deep in the boxes that they cannot reach them while standing on the edge.

BARLEY.—Myron Adams, of East Bloomfield, N. Y., states that nine premium barley crops have been raised in that township in the last six years; the greatest 69 bushels per acre, the least, 48½ bushels; the average, 59½ bushels; the average cost, including interest on land, $10; average price, 50 cents; average nett profit, $14 per acre. They all grew after well manured corn; the amount of seed sown, in nearly every case, was 3 bushels per acre.

The Horticultural Department.

CONDUCTED BY J. J. THOMAS.

North American Pomological Convention.

This body held its sessions on the day following the close of the State Fair, and was organized by the appointment of Dr. J. A. Kennicott, of Illinois, as President, and F. R. Elliott, of Cleveland, and B. Hodge, of Buffalo, as secretaries, with a vice-president from each of several different states.

A committee of five was appointed, consisting of Dr. Wendell, of Albany; Dr. Kennicott, of Illinois; Charles Downing, of Newburgh; Benj. Hodge, of Buffalo, and Prof. J. J. Mapes, of New Jersey, to confer with a similar committee to be appointed by the approaching Congress of Fruit Growers, to effect a combination of the two national organizations into one, and promote uniformity in Pomology.

Most of the time of the convention was occupied with the discussion of the merits of the different fruits, and their adaptation to the various localities of the northern and western States. This discussion possessed much interest, and many valuable facts were elicited, of which we may have space another month to present a condensed report.

The Convention continued but a single day, and was more numerously attended than the former one at Buffalo, but much less so than the American Congress of Fruit Growers last autumn. A good collection of fruits was exhibited, but smaller than usual, from the unfavorable season, and from the decay and bruising consequent on their previous exhibition at the State Fair.

Among those who took the most active part in the discussions of the convention, were, C. M. Hovey, Boston; N. Goodsell, P. Barry, Rochester; W. R. Coppock, B. Hodge, A. Bryant, Buffalo; Dr. Kennicott, Illinois, H. P. Bryam, Kentucky; David Thomas, Aurora; J. W. P. Allen, Oswego; C. Downing, Newburgh, and others.

Early Peaches.

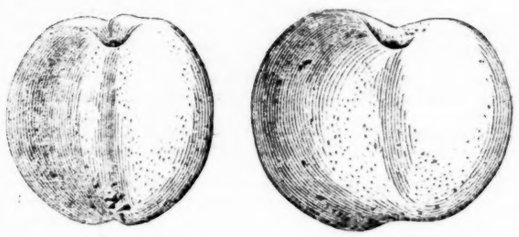
The similarity in size and form has always presented a serious difficulty, in distinguishing by description, some of the most celebrated varieties. There are, however a few of the early varieties that are quite strongly marked in their external appearance, some of which we here figure, reduced accurately to one half their usual diameter, and which well exhibit the relative sizes and forms of these sorts.

Yellow Nutmeg. *Early Anne.* *Early Tillotson.*

The Yellow Nutmeg is quite small, and a very moderate bearer, ripening about one week before the Early Anne. It is a very free grower, in which respect it differs from the Early White Nutmeg, which is smaller and earlier, and from the Red or Brown Nutmeg, and also from the Early Anne. Its flesh is deep yellow, and of good quality. It appears not to be described in the books, unless it is the "*Early Yellow Nutmeg*," mentioned in the Catalogue of the London Horticultural Society. Its flowers are medium or rather large, and its leaves bear reniform glands.

The Early Anne is small, often nearly medium in size, greenish white in color, of pleasant flavor, and were it not for its slow growth, and great liability to injury by the cold of winter, would be of great value. It is a very moderate bearer. *Fay's Early Anne* is a hardy free growing variety, twice the size of the old variety, but is a few days later, ripening a little before or with the Tillotson. It furnishes an agreeable variety among very early peaches, differing in its flavor from the other sorts of the same period. After three years fruiting by the writer, it has uniformly proved a very pleasant and good peach.

The Early Tillotson is full medium in size, deep red, high-flavored, and a great bearer. It often ripens, as far north as 43 degrees of latitude, by the 10th of 8mo. (Aug.) The mildew which covers the leaves of the young trees, towards the close of summer, is an objection, especially among nurserymen, with whom a rapid handsome growth is of great importance. It succeeds finely throughout the Southern States, where it ripens sometimes the first week of summer.

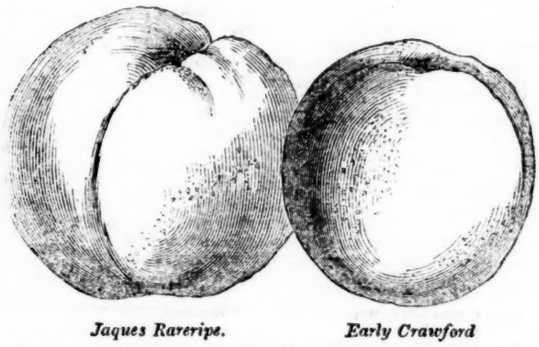


Serrate Early York. *Large Early York.*

The Serrate Early York, (known also as "True Early York," "Early York of Downing," &c.) is a little larger than the Tillotson, deep red, and ripens at the same time; and by most persons is considered fully equal in flavor; while the growth of the young trees is rather more vigorous, and nearly or quite free from mildew. Its oval form, early maturity, glandless leaves, and large flowers, distinguish it from all other varieties of its season.

The Large Early York is quite distinct, being ten days later than the preceding, larger, round or rather oblate in form, and bearing glandular leaves and small flowers. Its form, though very different from the Serrate Early York, does not distinguish it from several other sorts, of nearly the same season, as for instance the *George the Fourth, Walter's Early, Grosse Mignonne*, &c.

Passing several fine varieties which ripen within a few days of each other, such as *Cole's Early Red, Early Royal George, Cooledge's Favorite, Bellegarde, Early Newington*, &c., we come to two very large and showy yellow peaches, rather early or medium in season, distinguished by their popularity in market, viz:—



Jaques Rareripe. *Early Crawford*

Crawford's Early, or *Crawford's Early Melocoton*, quite large, very handsome, and peculiar for its *true*

oval form, which in very finely grown specimens nearly approaches globular. Although not of first rate quality, its great size and beauty have nearly placed it at the head of the list of market peaches. F. R. Elliot, of Cleveland, stated at the Buffalo Fruit Convention, that he had raised specimens measuring ten inches and a half round. Further north, it does not grow so large.

Jaques' Rareripe is a yellow peach, with a red surface, of the largest size, usually exceeding Early Crawford as far north as New York and New England. Its quality, though good, not of the highest character.

Roses.

Extracts of Letters from David Thomas, *near Aurora, Cayuga Co.*

New Seedling.—"Two or more years ago, I found a little seedling rose under the Champney, and transplanted it into a more roomy place. Last season, one shoot grew about 12 feet,—a perfect trailer,—and two shoots this year may extend 15 or 20 feet each. The flowers are in clusters, a light pink color, very double and beautifully formed. Like the Champney, however, it is rather tender, and will require to be laid down and covered with evergreens in winter. It opened yesterday for the first time, and we are all delighted with it. It is the smallest of all roses in my collection, which adds to its interest." 6 mo. 23, 1849.

Prairie or Michigan Roses.—"Our *Chillicothe* rose is much later than the other kinds, and will not be in bloom for some days—while the other four,—*Queen of Prairie*, *Baltimore Belle*, *Pallida*, and *Caradori Allan*, are in their glory. The *Queen* crowns the post *through* which it is fastened,* and some have thought it the finest object of the kind ever exhibited. As the flowers are not much clustered, they resemble little bells, but cover up the post completely. This circumstance is of much importance, and in training ought never to be forgotten, otherwise the post may appear like a tree with a dead top. The *Baltimore Belle* has its flowers in masses, and is not so picturesque on this account. *Pallida* has the best shape, but I fear is not sufficiently rampant in its growth for pillars. *Caradori Allan*, only semi-double, is more of a rose color than the others, grows rampantly, and will cover up the post. Professor Jackson said last year that none of his made a finer appearance, if so fine. Its flowers, like the *Queen*, are not much clustered, which is a great advantage. The *Chillicothe* also has a great growth, and we have one more than a foot higher than the post, and will soon be glorious.

"My *new seedling* has been admired, but like the *Greville* and *Laure Davoust*, is rather tender. I think it not quite so fine, however, as the two last mentioned. If these were hardy, nothing could exceed their splendor." 7mo. 6, 1849.

Layering Roses.—"Col. Young's method was to bud the new kinds on a thrifty shoot, and the next season when they started to grow, to lay them in a trench, earth them, and let them root. This plan is excellent for such as grow without flowering that season; but such as bloom abundantly, will rarely root, and often perish. In this way, I lost Fanny Parisot, Prince Albert, and others. I am now trying if destroying the blossom buds will not cause them to root, by stimulating the branches, as flowering is a very exhausting process. But I am carrying the experiment further. Pruning judiciously will often cause new sprouts to supply the want of foliage that the plant has lost; and whenever this takes place in a layer, it is strongly stimulated to strike new roots. Indeed, we may lay it down as a *general rule*, in respect to layers, that the growth of the root will be proportionate to the growth of the branches. To encourage this growth, the ends of the layers ought to be left as erect as possible." 7mo. 6, 1849.

"I find in making layers of rose shoots of the present year, that they are very impatient of slight injuries; and therefore it is best to bend down the stem into which the buds have been set, soon after vegetation commences, and the young shoots will be more erect. There is also an advantage in *beginning to earth* them early, as the bark is prevented from becoming rigid, and the fibrous roots from the base of the new stems will more readily strike." 6mo. 23, 1849.

Pillar Roses.—"I cannot discover many roses besides the Michigans, the Boursalts, and the Ayrshires, that are suitable for tall pillars *in this climate*. The Multifloras, indeed,—including the Greville and Laure Davoust,—on account of their not abiding our winters without protection, may be trained on the ground by moderate pressure, such as a flat stone or a block of wood,—covered with litter or evergreens, and then raised up and fastened to the post in spring, not omitting to wind them round it. *Hybrid Blanche* and *Watt's Celestial* show quite an aspiring disposition. But several others which I procured for this purpose, are totally unsuitable for this northern land, though they may do well three or four degrees further south. Of this kind is *Cora L. Barton*, *Solfaterre*, *Sandeur Panache*, *Madame Desprez*, and *Gloire de Rosamene*; I have not perceived any climbing tendency about them.

"I have learned something since last year in regard to training pillar roses. I began by passing the stem through the hole in the post, and then forming a considerable curve before it entered the hole next above, like a person with arms a-kimbo; but when they came into bloom, the appearance was not fine, but rather discordant to taste. Much of the post was not concealed; and when the top was bare, it reminded me of a dead topped tree. I now therefore wind each stem closely round the post—say once in three or four feet, and then pass it through a hole to prevent it from falling. In this way, and in consequence of the lateral branches of the next year, which bear the blossoms, the post will be covered up and concealed, while it will be thickly clothed with bloom from top to bottom, and be literally *a pillar of roses*."

* See Fig. and description of this mode of making pillars of roses, in last No. of the Cultivator.

Soils for Pears and Peaches.

Eds. Cultivator—A reader of the *Cultivator* requested me to say through the medium of your paper, what soil I considered the most suitable for the pear and peach; as he appears to have a variety of soils, I would say most pears require a strong loam; the Skinless pear does better on clay land; the Bartlett does well on a variety of soils; Mire Joannette, Madeleine Dearborn's Seedling, Bloodgood, Winter Nellis, Beurre d'Aremberg, Virgalieu, and many more might be named, that will do well on rather light soil if made rich. The Beurre Diel requires a rich close soil.

The peach with me, does best on black gravelly loamy soil. The White Imperial requires a more retentive soil than most peaches; the Earl Tillotson, Early York, Red Rareripe, and Beckwith, require the loam. The Beckwith Peach originated here, and all things considered, is the best peach for market we possess. For light sandy soils, Walter's Early. The planting season is now drawing near. S. Worden.

Oswego, Sept. 3rd, 1849.

Fruit Culture at the South.

Cuttings.—Suffer me to give you what we regard in this latitude, 37½°, to be facts, as regards "propagation by cuttings."

I have grown, and can show at this writing, the pear, peach, and plum, growing from cuttings in the open air. I grew last season quite a number of the pear, the cuttings being used as temporary stakes to hold labels; some of them grew to a size of half an inch, and full 4 to 6 feet high. I have seen the apple grow in the same way. I have seen an orchardist at Vicksburg grow peach trees—but only a few—from cuttings.

A favorable season is all that is needed. The past was quite a moist one, though no great quantity of rain. Cuttings do not succeed so well when very deep; they damp off,—taking a kind of dropsy.

I have tried plums and peaches a few times, but my situation was not favorable. Cape Jasmine will not grow here from cuttings; but with some persons they grow as readily as willows do.

I do not think any person can feed himself at making trees from cuttings of the apple, peach and pear; but they will grow sometimes.

[At the north, all experiments of the kind uniformly fail, unless performed with the increased heat and moisture obtained under glass. At the south, the atmosphere of damp seasons more nearly approaches that of a hot-house, and consequently proves more favorable to the growth of cuttings, &c. Ed.]

Grafting the Peach and Nectarine.—In February, 1848, I grafted some six varieties of the nectarine, and lost, probably, one in twenty-five; the grafts were sent to me some 75 miles, by steam and its detentions. I have grafted the peach upon plum and peach for two years, and upon pieces of roots for one year; and have as large and thrifty trees grafted in January and February, as those budded the previous summer, with a growth of two feet the same season.

Staking Trees.—I never advise a stake. Head down newly planted trees to one foot, or two or three or four feet, according to size, cut branches well in, and no wind will disturb them. Stakes are troublesome; and, when neglected, do a wonderful sight of harm. In 1845, I put my gardener (a Dutchman,) and my servant (a carpenter,) to staking my trees—peaches; the next spring they were rubbed, and bruised, and injured so greatly, that I had to cut down many of them. They are the last that I staked, and I have planted out 2,000 since.

[The very rapid growth of newly transplanted trees at the south, renders large size a matter of less importance,—in the view at least of most cultivators,—than at the north; and hence staking becomes less needful. But even here, trees of moderate size, with the shoots well shortened-in at the time of removal, which should in no instance be omitted, rarely need staking, *if the roots have been taken up of good length.* Such trees may be protected from the motion of the winds through winter, if set in autumn, by a conical mound of earth, a foot high round the stem. But in cases, where trees are so large, or the roots so much shortened in digging up, that they cannot withstand the force of the winds, staking becomes quite essential, and all danger of chafing the bark must be precluded by firm straw bands. Ed.]

Transplanting.—I do not transplant as is usually done. I precede the planting by either breaking up new land entire, or throw 6 or 8 furrows together, with a two-horse plow; and if the land is hard, I follow with another plow. Thus I save much labor in digging holes.

Is it not bad policy to make a hole 2 or 3 feet deep in a tough clay? Will it not hold water, and prove injurious?

In January, 1848, I dug out 2 feet deep, a trench 5 feet by 90, for asparagus; the best manure and rich soil from the woods were turned in, all mixed well, and planted with the roots; they grew extraordinarily. This year there cannot be one fiftieth remaining. Why? I think the clay retained all the winter water, and rotted the roots. My garden is upon a clay subsoil, and holds water like a jug. Next season I shall drain it.

I have now over 40 acres of fruit, embracing about 160 varieties of peach, 175 pear, 75 apple, 30 plum, 10 or 12 apricot, 8 or 10 nectarine, 3 quince, 6 figs, &c. &c.; my object being to test in the south. I shall continue gathering for a few years, and then cut down [all but the best] and throw into the fire. M. W. Phillips. *Edwards, Mississippi.*

Stoddart's Washington Alpine Strawberry.

Many of our readers have heard of the great fame of this variety in time past, most of whom are aware that those who have tried it, regard it as a great imposition upon the public. The following remarks from the Horticulturist, not only place the subject, as we believe, in its true light, but also afford some valuable hints for the successful culture of the strawberry:—

"Two points must be understood, to grow the best strawberries: 1st, that the soil must be deep; and 2d, that it must be rich. If you look at the leaves of a strawberry, and, because they are not very large, presume that the roots will extend but little depth, you are greatly mistaken. I have seen the roots of strawberries extend five feet down in a rich deep soil; and those plants bore a crop of fruit five times as large, and twice as handsome and good, as the common product of a soil only one foot deep.

"And this reminds me of a capital instance of *strawberry delusion*, which most of your readers doubtless know something about, but which many even yet do not, perhaps, fully understand. I mean the history of the 'Washington Alpine Strawberry,' which Mr. Stoddart, of western New-York, advertised and sold a great many dollars' worth of, some four or five years ago. Mr. Stoddart, I believe, was quite honest in the transaction; and yet the whole public were completely deluded by the 'Washington Alpine,' which was nothing but the old Alpine or monthly strawberry. The long and short of the matter was, that Mr. Stoddart had a corner of his garden which was *made ground*,—a rich deep moist soil, (I think it had been an old bog, or bit of alluvial, afterwards filled up,) not less than 8 or 10 feet deep. Mr. Stoddart had raised some seedling Alpines, (which, so far as I know, always come the same from the seed;) he had by lucky chance planted them in this corner of his garden, where the soil was so unusually rich and deep. There they grew so finely, and bore such enormous crops, that his neighbors could scarcely credit their senses. The story of the miraculous crop got into the papers. People came to see with their own eyes. In short, they bought and carried away the 'Washington Alpines,' at extravagant prices, with the full conviction that 'seeing is believing,' and that such strawberries were never before grown, gazed on or tasted. Well, great was their surprise to find, on planting and cultivating the 'Washington Alpines,' that there was nothing new or wonderful about them; and that, in fact, they all dwindled down to the old fashioned Alpine strawberry. Mr. Stoddart, naturally enough, now has as many hard names bestowed on him for the fancied deception as he had before had hard dollars for really great crops. And yet, Mr. Stoddart sold his plants in good faith, and was probably as much deluded as the buyers. The whole se-

cret of his unheard of crops, and the large size of his fruit, lay in the depth and richness of his soil; and as none of his customers had, like him, a rich ten feet mould to grow giants in, they had no 'Washington Alpines.'"

Notes on Apples.

Extracts of Letters from DAVID THOMAS, *near Aurora, Cayuga Co.*

We have been trying the *Broadwell* from Ohio, and it has been much admired. It greatly resembles the Bough, and some have proposed to call it the Winter Bough. Some of us have thought it the best sweet apple we have ever tasted *in winter*. 2 mo. 4, 1849.

The Wagener. Two persons from Penn Yan, well acquainted with this apple, both represent it as the best they ever tasted, and speak of its *tenderness* as a remarkable quality, and state that it is good if gathered even before it is full grown.

Domine. Perhaps I have no apple in my collection so perfectly *crisp* as the Domine. It seems not to have lost a particle of moisture since it was gathered from the tree. There are small dead spots just under the skin; but whether this defect is *accidental* or *characteristic*, I do not know.* It has a very superior flavor, but it is hardly *intense* enough. If we could increase it, it would be the best apple that I know. 2 mo. 10, 1849.

The Jonathan is better than it was a few weeks ago, because riper, and at this time I prefer it to the Spitzenburgh, which has rather deteriorated. 3 mo. 15, 1849.

Manning's Green Sweet is *dry* and *crumbly;* keeps well, but is scarcely fit for the table.

Domine remains remarkably without withering. It seems to have lost no moisture. Its flavor is very agreeable, though too much *diluted*. 3 mo. 15, 1849.

Peck's Pleasant bears every year, and is always free from the smut (lichen) on its surface. Its muskiness renders it more acceptable to some, and it is a very rich fruit besides. A gentleman lately, while eating one, pronounced it superior to all other known apples. Mid-winter appears to be the period of its greatest excellence. When kept in a warm place, the skin has generally become embrowned; but perhaps this may have arisen from white frosts before the apples were gathered. They do not keep as well as the *Swaar*. P. S. They appear to have been injured by frost on the tree,—because on one side (the most exposed,) they are injured to the depth of a line or more, while they are nearly or quite free on the other side. From this circumstance, it would seem that they ought to be gathered early.

6 mo. 1, 1849. Our two best keeping apples at this time, are the *Jonathan* and *Golden Russet*. [Not the Am. Golden Russet or Bullock's Pippin.] They also retain their flavor well, especially the latter.

Red Astrachan. This is the best very early apple for cooking in my collection, and I doubt if we have any *late* one that is equal to it for this purpose. Every freeholder that has room for a tree, ought to have at least one of this sort; and having proved its value, he would not be easily tempted to do without it. Even in this unfavorable season, the fruit is very fair; but it is too acid for the dessert. 8 mo. 15, 1849.

ROSE BUGS.—We observe a successful recommendation in some of the papers, of a mode of protecting rare and valued sorts of roses from rose bugs, by means of cheap gauze or other fine netting, placed in the form of a bag over the bush.

* Doubtless only occasional. ED.

Horticultural Items.

PEARS ON APPLE STOCKS.—There are very few varieties of the pear which will succeed well on apple stocks, and those few are by no means attended with invariable success. A neighbor has found no pear to grow better when grafted or budded into the apple, than the Vicar of Winkfield, few failures occurring, and the young trees growing vigorously. The following statement, however, from the editor of the New England Farmer, shows the importance of not hastily adopting this mode of raising the trees:—"We have a scion of the Vicar of Winkfield pear that has been growing five or six years on an apple tree. *The fruit is always hard and never ripens.*"

RAISING ONIONS.—S. Williams, of Waterloo, N. Y., states in the Gen. Farmer, that the best way to obtain early onions, is to "plant the black seed after the summer drouths are over, take them up in November and put them in the cellar—and in April set them out in beds. They will soon mature, and are much better than what are called top-onions. If you have a few small onions in the ground all winter, they will come forward very early in the spring, and may be eaten as a salad, tops and all."

TABLE GRAPES AT CINCINNATI.—The report of the Hamilton County Agricultural Society in Ohio, states that not less than 500 bushels of Catawba and Isabella grapes were sold at Cincinnati during the past season, for "table use." The price was three to four dollars per bushel.

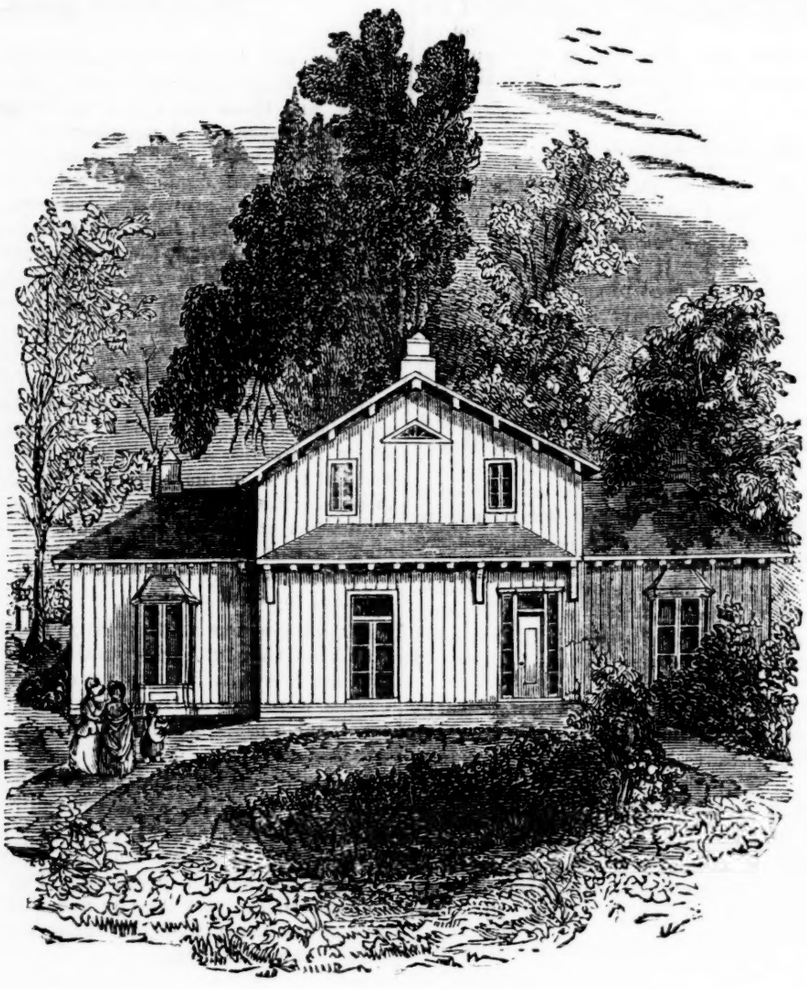
STRAWBERRIES—230 BUSHELS PER ACRE.—The Horticulturist states that a cultivator at Newburgh raised in 1848, on a bed measuring ten feet by twenty, *thirty-four quarts* of Hovey's Seedling strawberry, or at the rate of 230 bushels per acre. The soil was trenched two feet deep, very heavily manured from the stable, and subsequently with poudrette, with some ashes and salt. The whole was worked over two or three times; the plants were set out in the spring of 1847, and the crop gathered in 1848.

In the latter part of summer 1847, the bed was enlarged to 24 feet by twenty, by the addition of Swainstone Seedling and Black Prince, with similar manuring. In 1849 the whole bed (including the Hovey's) bore about 80 quarts, or over 200 bushels per acre. The editor of the Horticulturist states that at least *four times* as much manure was used as is usually employed in preparing strawberry beds.

PEACHES AT THE SOUTH.—M. W. Phillips, of Edwards, Miss., in a communication to the Horticulturist, says that the two best very early peaches at that place are the *Tillotson* and *Serrate Early York*. They ripened the present year about the 6th of 6th month (June.) The Tillotson proves to be of healthy and rapid growth, and bears better than the Early York, which is rather preferred in flavor, but is liable to rot. *Cole's Early Red* proves to be a fine peach, but inferior to the others.

BLACK PRINCE STRAWBERRY.—James Dougall, of Amherstburgh, C. W., says that with him the plants of this variety are quite hardy and resist both cold and heat; and that on his soil it is more than twice as productive as Hovey's Seedling. The Cincinnati Hudson is the strongest grower he possesses, and is by far the most prolific bearer.

SALT AS MANURE.—The editor of the New England Farmer says, "Corn and beans have flourished well where we have planted them on lands overflowed by salt water at the time of high tides in the spring and fall; but on the same lands potatoes were inferior just as far as the salt water extended."



CHEAP COUNTRY HOUSE.

Rural Architecture.

Cheap Country House.

The accompanying plan of a house was designed by Mr. F. R. Elliott, of Cleveland, Ohio, and received a diploma and silver medal from the New-York State Agricultural Society, at its January meeting, 1849. We copy the cut, and Mr. E.'s description, from the Society's last volume of *Transactions:*

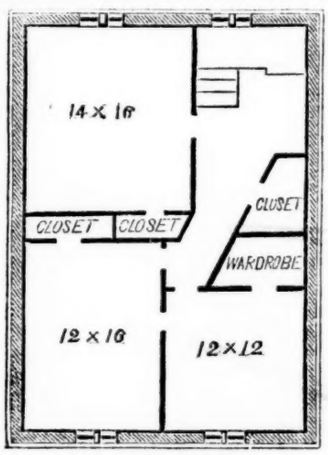
The building is particularly designed to point either north or west, and should, if possible, be placed upon a slight rise of ground from the adjoining public highway, or surrounding grounds.

The value of land in the country, as compared with the disadvantages of basements for kitchens, etc., should not receive a thought, and while this plan may be said to cover a large area of ground, I trust to be able to show that it can be built for a much smaller amount of money, than any plan of equal convenience, room and character yet published. A free circulation of air, connected with large and convenient rooms, are material points, and in this they may be had. The size of cellar may be according to the wishes of the builder, but my estimate and plan is for a cellar only under the wing in which is the kitchen, that being of size sufficient to hold all vegetables, etc., that will be required for the consumption of a large family. Vegetables for stock should, for easy access in feeding, as well as the injurious effects sometimes resulting from a too large quantity stowed in the house cellar, always be confined to the barn cellar.

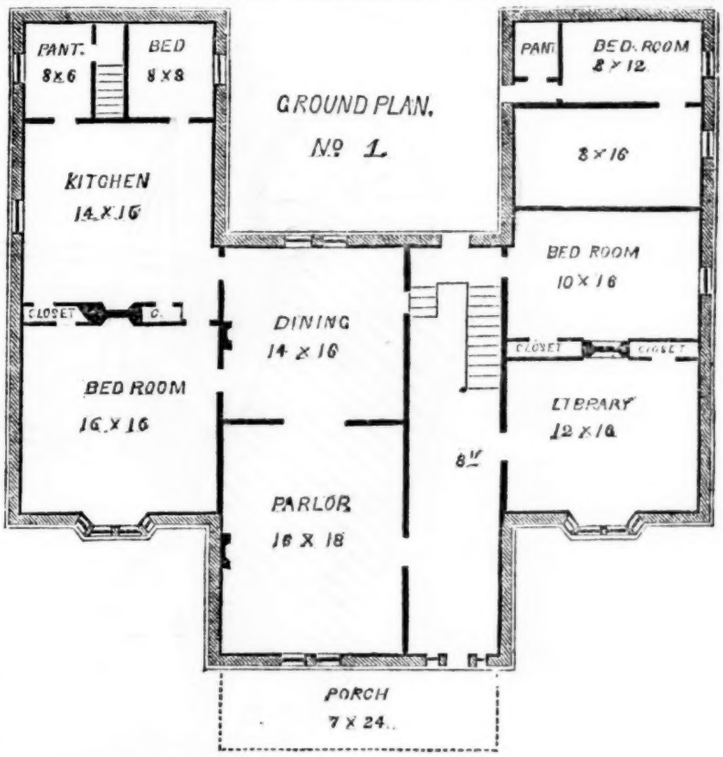
The main house is 24 by 32 feet, with 18 feet posts, and having a porch 7 feet wide in front, supported by brackets. The wings are each 16 by 40 feet, with 11 feet posts, and falling back 12 feet from the front of the main building. Of the first story front, the main building has a single panel door, and one large window, opening each way inside upon hinges. The wings have each an oriel or bay window, projecting one foot, and having the centre lights of glass hung upon hinges, to open inside. The second story front, the two windows like the one below, are divided by a heavy style, and open inside. The covering, as indicated in the elevais to be of inch pine boards, that have been run through a planing machine, and cut to a width and thickness. These battened with half inch stuff, three inches wide. As the lower story of the main building, as well as wings, are all designed to be 11 feet high in the clear, it is evident that the best length of boards will be 12 feet, as they will allow of no waste.

The estimate of cost here given is for plain but good work. No mouldings, turnings or carvings, as all such only add to the labor of the housewife in keeping them clean, and are really no ornament, as taken in keeping with the other articles usually accompanying the country.

The fire place in the parlor is designed to be carried to a level with the chamber floor, and then carried ho-



SECOND FLOOR
No 1.



rizontally along the side of wall until it reaches the partition of chambers, when it may rise diagonally to the centre. Some may prefer a sheet iron flue, which could, like a stove pipe, be removed from the chamber during the summer months. Some may prefer to have the chimney rise direct, as tending to break the uniformity, which, by the way, seems among architects of the present day to be more the intention in their designs, than to give positions suited to the real wants of daily life.

That my estimates of cost are correct, I can only say that they are such as I have contracted in building this house, and are therefore reality, and not fiction or supposition.

Estimate of Cost.

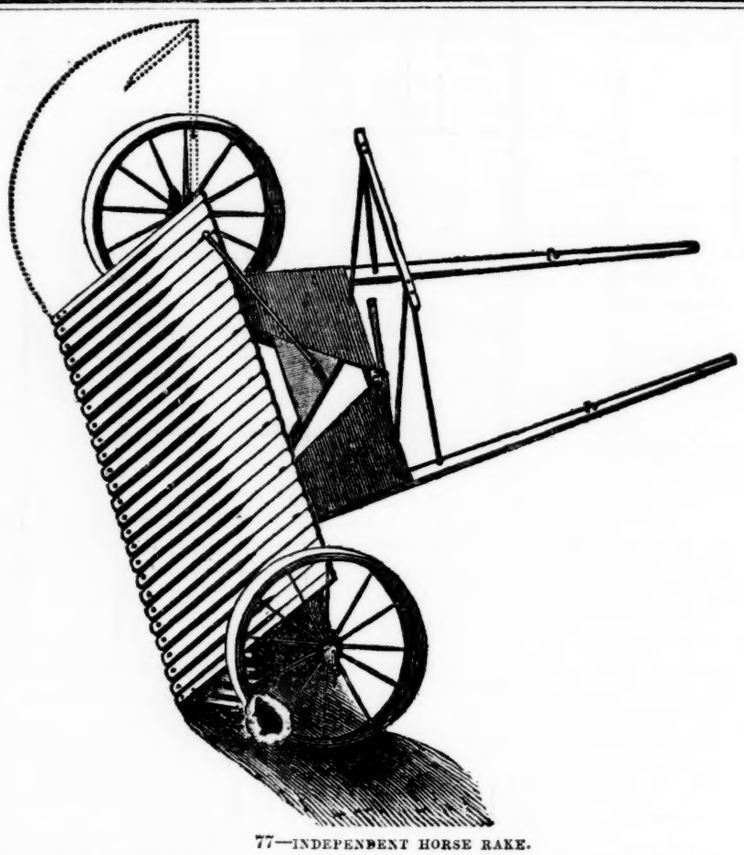
1,000	feet hewed timber, at 2c.,	$20 00
4,134	" inch pine boards, planed, 10½c.,	44 65
4,100	" roof boards, at 7c.,	28 70
1,200	" ½ inch, for battings,	12 60
500	" 1½ inch, second clear, at 13c.,	6 50
200	" 1¼ " " say,	3 00
182	" 1½ " for water table,	1 75
21,000	shingles, at $2.50,	52 50
968	feet, or 66 pieces, 4×4 scantling, 11 feet long; 320 feet, or 24 pieces, 10 feet long; 171 feet, or 8 pieces, 16 feet long; 168 feet, 3×4, 14 feet long; 576 feet, or 32 pieces, 2×4, 18 feet long; 880 feet, or 80 pieces, 2×4, 11 feet long; 176 feet, or 16 pieces, 2×4, 11 feet long; 184 feet, 2×4, long as possible; 118 joists, 3×8, 16 feet long; 16 joists, 2×8, 10 feet long; 54 joists, 16 feet long—for ceiling joists. Estimate all the scantling at,	50 00
Joiner work, to frame, enclose, make sash, &c.,		200 00
Glass and putty for windows,		20 00
Nails,		15 00
Door and window swings,		10 00
		$464 70
This is exclusive of the cellar wall and underpinning, which, with the chimneys, may be (inclusive of materials,) made for,		125 00
Flooring,		20 00
Inside joiner's work and lumber,		150 00
Lath and plastering,		200 00
		$959 70
Extras,		40 30
		$1000 00

This of course, does not allow for the digging of cellar or hauling of lumber;—that must be calculated according as the distance is far or near.

A green-house is, of course, extra; but if the house fronts to the north, it might be constructed, in rear of the dining-room, at a small expense—say thirty dollars. The front wall would of course, be all required, and that should or could be done with four-inch scantling, let into a sill of six by eight, boarded on each side, and filled with saw-dust or tan-bark;—the sash and roof being most of the expense. The heat could be taken from the kitchen, if a stove was there used.

Ancient Price of Agricultural Labor.—In the year 1352, the 25th of Edward III., wages paid to haymakers were but 1d. per day; a mower of meadows 3d. a day, or 5d. an acre; reapers of corn, in the first week in August, 2d.; in the second, 4d. per day; and so on until the end of the month, without meat, drink, or other allowance, finding their own tools. For thrashing a quarter [about nine bushels] of wheat, 2½d; a quarter of beans, peas, barley, or oats, 1½d. By the 13th of Richard II., in the year 1389, the wages of a bailiff of husbandry was 13s. 4d. a year, and his clothing once during that period at most; a carter, 10s.; shepherd 10s.; ox-herd, 6s. 8d.; cow-herd, 6s. 8d.; a day laborer, 6s.; a driver of ploughs, 7s. In 1444, the 23d of Henry IV., the wages of a bailiff of husbandry were 23s. 4d. per annum, and clothing to the price of 5s., with meat and drink. In time of harvest a mower had 4d. a day, and without meat and drink, 6d.; a reaper or carter, 3d. a day—without meat or drink, 5d.; a woman laborer, and other laborers, 2d. a day—without meat or drink, 4½d. a day. By the 11th of Henry VII, 1696, there was a like rate of wages, only with a little advance.

Time of Cutting Hay.—John H. Garnet, of Va., cut 75 stalks of timothy grass immediately after "the dropping of the bloom," and again 75 when the seed was fully ripe; both were of the same length, and cured alike. The greenest cutting was found to weigh 121 grains more than the other.



77—INDEPENDENT HORSE RAKE.

The Farmer's Note-Book.

Independent Horse Rake.

This rake was patented by Calvin Delano, of East Livermore, Maine, Feb. 27, 1849. It is fitted to the wheels of a single horse wagon, and tended by a man or boy, who can stand on the platform, forward of the rake, drive the horse and gather the hay with certainty and ease. By placing the foot on a lever attached to the axletree, the hay is discharged in winrows. Each tooth acts separately and independently, its head being suspended on a rod or hinge, over the axletree, one tooth being attached to each head. It is applicable to rough and smooth land, and applies with equal pressure on each kind of surface.

This rake has been considerably used in Maine, and several of the best farmers in that state have given certificates expressive of their satisfaction with its operation.

For particulars address R. H. Chase, Albany,

Rust, Osage Orange, &c.

Eds. Cultivator—I do not propose to instruct any one, but as you do not often hear from this part of the country, it may not be out of place to allude to a few items of consequence here.

Rust.—In common with most parts of the Great West, we have been visited with this malady. Never, in this county, and perhaps I may add in this part of Ohio, as well as in the adjoining counties of Virginia, has there been more wheat in the ground, rarely has it looked better, and probably, in no previous instance, have we counted with greater assurance upon the avails of this crop—than this year. Yet almost in a day, our crops were cut off, and some of the most promising fields in the country have not been cut. There will not, with us, be more wheat threshed than was sown. It is not so bad every where, and we are glad of it.

We have not yet been informed of either the true cause or adequate remedy; but are resolved to try again; sow less ground and prepare it better.

The Mediterranean seems to be the favorite variety here, at present. Our millers, who first condemned it, now understand how to grind it, and like it very well.

Nothing will conduce so much to the improvement of our wheat crop, as the free culture of clover.

Osage Orange.—Our farms along the Ohio and Muskingum rivers, are subject to inundation, by which we lose a large amount of fencing. Having suffered in this way, I procured last spring 4,000 plants of this shrub from Mr. Bateham of Columbus,—one-half for myself, and the other half for a thrifty English farmer, who is my nearest neighbor.

The plants were long coming, and consequently somewhat injured, and we lost some 500. Each of us set about a fourth of a mile along the Muskingum. His ground had been previously prepared by throwing up with the spade in winter, and consequently, the plants have grown rather better than mine. My plants are now from a foot to four feet in height.

We have both of us, come to the conclusion, that we might have gained a year by pinching off the tops when they were six inches in height, early in June, as it would cause each branch to send out six or eight lateral twigs, which in turn might be shortened in July, and thus secure a good and compact hedge, of one to two feet in height, the first year, and by adopting a similar course the second produce a hedge. This may not answer everywhere, but upon our soil and in this climate, with good culture, it probably will. We were led to think of it by plants being accidentally broken off.

The only objection which I perceive can be urged against this method, is that it produces smaller branches. True, it dwarfs the plant, but with us, the greatest objection to the orange is, that is is too luxuriant and rank. This seems to make it finer, and better adapted for hedges. We expect to set more in the spring, preparing the ground in winter.

Mustiness.—In a humid climate, along water courses, and upon moist soils, most families are more or less troubled with a musty, offensive dampness. It is frequently so great as to render clothes unpleasant to wear. Drawers and closets are affected by it, and even large rooms, not frequently ventilated, are sometimes so unpleasant as almost to take the breath away on entering. But it is in the pantry, milk-room and cellar, that it is most frequently found. Victuals acquire an unpleasant taste; milk becomes unfit for use, and butter loses its flavor. Now, whatever other causes conspire to produce this result, is it not probable that the presence of an undue amount of carbonic acid gas is the chief cause?

The Remedy.—Would not science dictate something which would absorb the noxious gas? What better than the leaves of plants? There are, doubtless, many who resort to this method; but there may be some, who, like myself, never thought of it. Every few days place a few branches of any good trees or shrubs in the infected apartments. You will probably find the air much improved.

State Fair.—Many of us greatly regret that we have no State Fair this fall. You may expect a large Ohio delegation in New-York, and a kind Providence permitting, next year we will try it in Ohio. Darwin E. Gardner. *August* 20, 1849.

Note.—The mustiness to which our correspondent alludes, can be remedied by placing lumps of fresh burnt lime in the infected apartments. The lime, in the process of slaking, absorbs the carbonic acid gas. Eds.

Ammonia in the Atmosphere.

At the convention of the American Association for the Advancement of Science, held at Cambridge, Mass., in August last, Prof. E. N. Horsford read a valuable paper on the "Moisture, Ammonia, and the Organic Matter of the Atmosphere."

In relation to moisture, Prof. H. gives the following as some of the results to which his observations tended:

1. Other things being equal, the moisture is in general proportion to the temperature.

2. Slight variations of temperature are not accompanied by corresponding variations in the quantity of moisture.

3. Great variations in the quantity of moisture may take place while the temperature and altitude of the mercurial column remain constant. The quantity of moisture has even doubled in the course of an hour, although the temperature became reduced.

4. As a general remark, the moisture on the same day seems to depend chiefly on the direction of the wind.

5. The least quantity of moisture was observed during a N. W. or N. N. W. wind; the largest during a S. W. or S. S. W. wind.

6. The former occurred on the 12th March, and the latter on the 23d of June. The quantity on the latter day was to that on the former as more than fifty to one.

To test the quantity of ammonia in the air, Prof. H. used an apparatus of his own construction. He says—"The object in view in the arrangement of the apparatus was to provide that the air should, by means of an aspirator, be transmitted through a constantly renewed atmosphere of hydrochloric acid vapor. To this end a series of tubes containing asbestos drenched with hydrochloric acid, and terminating in a potash bulb tube containing diluted hydrochloric acid, were connected with a safety tube, which was connected with an aspirator. Through this apparatus, a known volume of air was transmitted. At the conclusion of the experiment, the apparatus was thoroughly rinsed with distilled water, and the ammonia determined in the usual manner with bichloride of platinum.

"To find a normal atmosphere two determinations were made from the end of Foster's wharf, which, in one direction looks out upon the Atlantic during the prevalence of a strong east wind. A second determination was made in a court called the 'Half Moon,' communicating with Broad street, Boston, an area of crescent form, about 180 feet by 70 feet, surrounded by brick buildings of five and six stories in height.

"In these buildings it was estimated there were not less than a thousand individuals, most of whom, in extreme poverty, have within a few months arrived from Ireland. This locality was pointed out by one of the assistants of the City Marshal, in reply to the request that he would direct to the worst habitable part of the city. In the centre of the court were the common vaults and sinks serving this large population. The atmosphere of this court, which was offensive in a high degree, was not found to be distinguished on account of its ammonia, above that of the ocean in an east wind.

"Two determinations were made in Cambridge, one during the prevalence of an east wind, the other during a west wind. The quantities of ammonia in the east wind, as ascertained from the above determinations, vary very considerably from each otner. Great care was taken in the preparation of the reagents employed and the ammonia in the hydrochloric acid, water and bichloride of platinum previously ascertained. Still such was the discrepancy between the author's results, that he forbears a statement of the quantities ascertained, only so far as to remark, that they very greatly exceed those obtained by Fresenius in his recent determinations at Wisbaden.

"Organic matter has been observed in the air by several scientific men. Henry and Chevalier have detected acetic acid, and probably hippuric acid, in the atmosphere of a stable.

"On transmitting a large volume of air through the ammonia apparatus, supplied with hydrochloric acid, and evaporating in platinum over a water bath to dryness and ignition the products of a thorough rinsing, no blackness was observed. On transmitting a similar large volume through a similar apparatus supplied with caustic potassa, previously found to be free from organic matter, and treating as above, the residue blackened. This goes to show, as far as a single result may, that the organic effluviæ in the air are of acid character."

Litigation.

I cordially agree with the remarks of a "Farmer" on Litigation in the last *Cultivator;* his admonitions are excellent; and it is well that he has called the attention of the commmunity to the subject.

Persons very peaceably disposed, however, in resisting an oppressor, are liable to be drawn into a lawsuit. Such an instance is fresh in my memory; and we may ask if our judiciary system is calculated in every particular to protect an honest man without the risk of his being ruined? No—it is quite otherwise from its excessive expenses; and though many improvements have been made since we emerged from under a monarchy, yet enough remains of the old fabric to show that the good of a *few*, and the disregard of *the many* have been leading ideas in the minds of most statesmen.

If this remark should seem too censorious, let us consider the provision for jury trials in civil causes, which should never have been introduced. No person more highly appreciates a jury than I do, when life or liberty is at stake,—interposing itself between the government and the accused, for judges in the olden time were more or less suspected of leaning towards the side of power, and the same thing may occur again. But a jury trial in civil causes has no such advantage. A verdict of *Not guilty* is final; but *civil* verdicts are of no certain value. In the former case, a jury is the palladium of liberty, but in the latter, too often the instrument of injustice. In my view it is worse than useless; and this opinion *I know* is held by some of the soundest lawyers

in the State. Let us look at the subject deliberately. Twelve men are empannelled to settle a dispute according to the laws of the land; but the judge has first to tell them what the law is, under which they have to act. Now, if they bring in a verdict according to his explanation, what have they done to justify all the expense of bringing them together, and keeping them there? Not one fact have they ascertained that the witnesses would not have established without them; and their verdict, the judge with one-twelfth part of the parade, would have made up and recorded. On the reverse, if they disregard the law, no earthly good is gained,—for the losing party is encouraged to appeal to a higher tribunal, where wrong-headed jurors never intrude.

But this statement is only a part of the story. When a man is sick, does he send for the blacksmith? When he goes to law, does he employ the carpenter? Yes, as a juror! and the cases are equally inconsistent. Now if the cobbler ought to stick to his last, then lawyers ought to compose the jury in civil causes. But how is it? The farmer is taken from his field, the mechanic from his workshop, and the merchant from his counter—men whose minds have been occupied with far other studies, and whose perceptions have not been sharpened in the school of chicanery. Well, the court opens, and most of its time is taken up by counsel,—on one side in attempts to impose on the credulity of the jury,—and by efforts on the other side to dispel the mists that befog them. Hence comes the minute examinations of witnesses, that have no bearing on the main question—anything to divert attention from a weak point, to puzzle and confound; and hence the four and five-hour speeches, calculated

—"to make the worse appear
The better reason"—

but which would not be offered to the judge, were no jury within hearing. He, poor man,—the very exemplar of "Patience on a Monument," must bear it as best he may, for impartiality is a first rate virtue in a judge. Better would it be to dash such sophistry aside, and let the light of truth beam at once on the contending parties.

Against abolishing this cumbrous system, will be opposed the selfishness of some, and on the prejudices of many; but I trust that a fair exhibition of its abuses, before an enlightened people, will gradually work out a remedy.

We want Courts of Conciliation, where those who intend to litigate are *bound to hear advice* before commencing a suit, though *not compelled to take it;* and in this respect we are not far behind the Danish (and perhaps Spanish) colonies in the south. A clear statement of the law as applied to the case, would often operate on a contentious spirit, like oil on the troubled waters; while on the contrary, in the present state of things, an unprincipled lawyer, eager for his fees, often excites such a spirit to a high degree; and inflicts a deep injury not only on the individuals immediately concerned, but also on their neighbors and the public at large. An Observer.

Grass Lands in Kentucky.

Eds. Cultivator—A young friend of mine asked my advice in laying down to grass a particular field, which he wished to put in rye this fall; I answered his letter. He showed my letter to Mr. Weissenger, one of the editors of the *Louisville Journal*. It is introduced by some remarks from Mr. W. He and myself are at issue as to fall plowing. I adhere to the opinion expressed in my letter to Mr. O. My practical knowledge is not sufficient however, to induce me to maintain it, against the evidence of one more experienced. You will oblige me by giving me light on this subject, either from yourself, or from those in whom reliance may be placed. Lewis Sanders. *Grass Hills, Ky., July* 27, 1849.

The following is the letter of Mr. Sanders, above alluded to:—

Mr. R. J. Ormsby—*Dear Sir:*—In laying down land to grass, either for pasture or for the scythe, it is very important to have it thoroughly and uniformly set, otherwise full benefit is not derived from the land. If the seed comes up in patches, leaving one-fourth to an eighth of the ground bare, which is frequently the case, a corresponding loss ensues. A field rightly managed will graze one-third to one-fourth more stock, and yield hay in proportion, than one that is slovenly put in.

Sowing grass seed late in the summer or fall does best, if the succeeding winter is favorable, but the great uncertainty has caused me to abandon fall sowing, as the roots do not attain sufficient strength to resist the frosts of winter.

My observations and experience lead me to disapprove of breaking land in the fall for spring culture. The earth should not be left *naked* at any season, but, when so exposed in the summer, nature protects herself by a growth of weeds or some sort of herbage as a clothing. This she cannot do in winter, but is left naked, exposed to the sun, winds, rains and frost, and alternate thawing and freezing for months.

The richest, the most fertilizing particles of the soil are the lightest, consequently the easiest carried off by the rains, melting of snow, and the winds, causing, in my opinion, a much greater loss of the food for plants than is gained by pulverizing the earth from freezing.

My advice is to break up your ground late in the winter, or as early in the spring as the frost will allow. You ought certainly to *trench plow;* that is, a second plow, *following the first in the same furrow,* each to be as deep as the team can draw it. I use *three horses* to plow, geared *abreast*. This is the right preparation for *corn*, or for any spring crop. The ground should then be well harrowed, using a heavy harrow—having your ground in proper order for the reception of small seed, mark it off in checks, that is, each way. Sow half the seed in one way, and cross it for the other half, getting thereby, a more uniform *cast*, leaving no bare spaces.

For meadows, for farm purposes, or for permanent pastures, I sow orchard grass seed and red clover seed only—one and a-half bushels of the former and four pints of the latter to the acre, the seed to be sowed separate, but at the same time harrowed in with a very light harrow, or carefully brushed in. Towards the end of May or early in June, a variety of weeds will make their appearance; the whole of the ground must then be passed over with the scythe, cutting everything as smooth as may be, grass and all.

Keep off every kind of stock till the fall; then it will afford fine grazing for calves.

A compliance with these suggestions will give you the best return for your land, either for meadow or permanent pasture; but if you prefer sowing on winter grain, sow the same sort of seed, increasing the quantity of clover seed fifty per cent. Sow in January or February, but not after the 1st of March, if sowed on winter grain.

Or you may sow on oat ground immediately after the oats are sown. Sow orchard grass and red clover as on winter grain; if the oats should fall or lodge, cut them off close to the ground with the scythe, removing them immediately. Sowing seeds on winter grain or on oat ground will in most seasons succeed so as to afford some grazing, but ought not to be relied on, if you want a full crop of grass for any purpose.

Avoid *red top;* let it not come on your land, unless

you have some swampy ground. Upon uplands it is the poorest of all the grasses. It vegetates late, is a great *intruder*, will take hold and spread over the farm, and is of the least value of any.

Have nothing to do with timothy, unless you wish to sell hay as an article of commerce. For this, it is the best, but for hay, to be fed on the farm, it is worthless, and for grazing it has not a tithe of the value of orchard grass.

The remarks of the *Louisville Journal* in relation to Mr. SANDERS' letter, are as follows:—

We are pleased to be able to lay the above letter before our readers. It may be read with instruction by old as well as young farmers. Mr. Sanders' practice of sowing grass alone and early in the spring is undoubtedly the correct one. We think it more bungling to sow with small grain, or to sow at any other season. It is the only method to *insure* a good stand and to insure a good swath the first season. We think, however, that there is a great advantage in breaking up the ground late in autumn or in the early winter. This makes sure of getting the ground prepared for an early sowing, and besides it is the established opinion that the soil is ameliorated by the action of the air and the frosts of winter. This is especially true if trench plowing is adopted; and in this case, there certainly can be little loss from the action of the wind and running water—not so much as if the ground were not plowed at all. The grass seed should be sowed very early, *immediately* after the last harrowing, and just before an expected rain. Two or three harrowings are not too much, and the harrow should always immediately precede the sower, that no wild grass or weeds shall germinate before the sown grass. If sown under the best conditions, orchard grass and clover will take entire possession, and keep it, to the exclusion of all weeds. An excellent method to insure this exclusion, is to soak the grass seeds for twenty-four hours, in which case ashes or lime may be mixed through the seed, after they are drained. This will prevent their sticking together. But soaking is not necessarry if the seed can be sown just before a rain, and just after the harrow. But care must be taken that the seeds be not covered deep, or the weeds will still get the start, and many of the grass seeds will never germinate. Therefore, the surface of the earth should be very smooth when the seed are sown, and the harrow should by no means be used to cover the seed. Brush, as recommended by Mr. Sanders, may be used, but it is much better to draw over the soil a smooth surface of boards like a large door, with the battens uppermost. The horse can be attached to this platform by means of a rope, passing through one corner, and the driver should stand upon the platform. In this way, the soil is smoothed and finely pulverised, and the seeds are but lightly imbedded, and they spring up before the weeds, and prevent the germination of the weeds.

Oxen vs. Horses.

EDWARD STABLER, Esq., of Montgomery county, Maryland, writes to the editor of the *Plow, Loom and Anvil*, that in 1822 or '23 he commenced the substitution of oxen for horses on his farm. He began in midsummer to break up a field for wheat. For a day or two the oxen suffered greatly with the heat, in the middle of the day, but by rising early, and resting two or three hours at noon, and feeding on dry food, he was able to plow nearly as much with a yoke of oxen as with a pair of horses, and the work was quite as well done. The horses consumed about one bushel of grain per day and the oxen none. He found the result, after a thorough trial, so much in favor of oxen, that he has ever since continued their use. For many years there was not a furrow plowed on his farm except by oxen. He observes that oxen, if properly broken, quite as readily, if not more so, take to and keep the furrow, as horses. His rule is to keep two yoke of oxen on the farm to one pair of horses. He well remarks, that—"to judge of the capabilities of the ox, by the badly-used, houseless, over-tasked, and half-fed animals we sometimes see in the yoke, is doing him great injustice. Treat the horse in the same unfeeling manner, and where would be his high mettle and noble spirit? He would speedily arrive at a premature old age, valueless to his owner, and a cast-off to feed the carrion crows. That the ox can better stand this harsh usage, is certainly no valid or sufficient reason that he should be subjected to it. Use him with equal care and humanity, and he will just as certainly, and with more profit, repay it to his owner."

Points of the Horse.

A point of great importance in the fore-leg of a horse, is the proper setting on of the arm, which should be strong, muscular and long. By the length of this part in the hare, added to the obliquity of the shoulder, she can extend her fore-parts farther than any other animal of her size; in fact, she strikes nearly as far as the greyhound that pursues her, by the help of this lever. The proper position of the arm of the horse, however, is the result of an oblique shoulder. When issuing from an upright shoulder, the elbow-joint, the centre of motion here, will be inclined inward; the horse will be what is termed "pinned in his elbows," which causes his legs to fall powerless behind his body. A full and swelling fore-arm is one of the most valuable points in a horse, for whatever purposes he may be required.

If sportsmen were to see the knee of a horse dissected, they would pay more attention to the form and substance of it than they generally do. It is a very complicated joint, but so beautifully constructed that it is seldom subject to internal injury. Its width and breadth, however, are great recommendations, as admitting space for the attachment of muscles, and for the accumulation of ligamentous expansions and bands, greatly conducive to strength. The shank or cannon bone, can scarcely be too short. It should be flat, with the back sinews strong, detached, and well braced. This constitutes what is called a "wiry leg." Round legs are almost sure to fail.

As to the size of a horse, it may be remarked that no very large animal has strength in proportion to its size. That the horse has not, the pony affords proof, if any other were wanting. There have been many instances of horses, little more than fourteen hands high, being equal to the speed of hounds over the strongest counties in England. For example, Mr. Wm. Coke's "pony," as he was called, many years celebrated in Leicestershire.—*Abridged from an Essay on the horse.*

Cultivation of Orchards—Temperance.

EDS. CULTIVATOR—Among the various kinds of business which are followed for a living, those in which the morals of the community are most guarded, are the most important. That men can be honest and moral in every branch of honorable business is true; but that some kinds of business present stronger temptations for over-reaching than others, is also true. I think the business of farming offers fewer inducements for immoral and dishonest acts, than any other followed. That there are farmers who are vicious in their habits and dishonest in their acts, is admitted. Generally, however, good order and sobriety are maintained by the agricultural population of our country.

Since the great temperance reformation came up, the

habits of farmers, as well as those of every other class, have improved. It is but a few years since alcoholic drinks were thought necessary to the laborer in the season of haying and harvesting. But a great change has taken place in this respect, and but few farmers persist in the use of such drinks.

Cider-making and cider-drinking have been mostly confined to New-England and New-Jersey. When cider-drinking went out of fashion, the orchards at the west were mostly young, and they were grafted for the production of market fruit. But in New-England, orchards, chiefly of natural fruit, have been growing for a century and a-half. The apples, our fathers thought were just fit for cider and for nothing else; but it has since been proved that they were excellent for stock through the fall and winter.

Twenty and twenty-five years ago, two-thirds of the farmers' time in autumn, was spent in gathering apples and making cider. This caused a great neglect of other crops, and was time thrown away. The farmer filled his cellar with the cider, and carried what was left to the "still," to be made into cider-brandy. It was not an uncommon thing in Connecticut, for the farmer to have, not only a cider-mill, but a distillery also; and even to this day, I am sorry to say, there are some of these mills in operation—preparing poison and death to be scattered through the community.

There are farmers engaged in this business who claim to be moral men; but I would ask them, if by pursuing this business, they are sustaining good order and improving the morals of the community? If not, the business should be abandoned at once. I know the influence of self-interest—there is no interest like it. Of course it is this principle—the desire of making money—that induces farmers to engage in this injurious traffic; and yet I am far from believing that this is a money-making business. The extreme low price at which cider sells, will hardly pay the expense of gathering the apples and making the cider. As to the price of cider-brandy, I know nothing; but I know something of the moral desolation that prevails in neighborhoods where it is extensively sold and drunk.

In the early stages of the temperance reform, some farmers, who had great zeal for the cause, cut down thrifty orchards. This was a great mistake, as was afterwards seen. Of all fruits raised in New-England, the apple is the most useful. The best course which farmers can adopt with their old orchards, that bear only natural fruit, is to cut off the old top, and graft on a new one, with kinds suitable for market. Let all old and unthrifty trees be cut down. The healthy trees, with proper attention, will soon come into bearing.

As to a market for fruit, there will always be a ready one for a century to come. L. Durand. *Derby, Ct., August* 1, 1849.

Transmutation of Wheat into Chess.

Eds. Cultivator—The transmutation of wheat into chess, is doubted by many; and, from your remarks in the July number, I infer that you regard the matter as merely speculative, without any facts to warrant it. To my mind this question is most conclusively settled by evidence which has come under my own observation, and which cannot, in any way, be contested or set aside. With a view of settling this question, I send you the following fact, which you may dispose of as you think fit.

Many years since, while I was yet a boy, I aided my father in the cultivation of his farm. He had a field of about ten acres which he concluded to sow in wheat. The ground was well manured in the fall and the wheat sown at the usual time. It came up remarkably fine and looked exceedingly well, during the fall and throughout the spring. It was pastured, I believe, in the spring by the calves, in order to prevent it from becoming too rank and lodging. The time of heading at length arrived, but judge of the astonishment to find that this promising field of wheat was now one *luxuriant crop of chess*—every stalk of wheat, with but few exceptions, was converted into a head of chess. There it stood; the wonder and amazement of all who examined it.

And now what was to be done with it? was the next question. It was finally concluded to mow it, before it would get ripe, and feed it to the cattle for hay.

This was an operation which I witnessed with my own eyes, so that I had every opportunity to satisfy my mind of the truth of this fact by personal observation. From that time to the present I have never had the least doubt but what wheat may change into chess. Under what circumstances this may take place, or what the cause may be to produce this change, I do not pretend to say. I advance no theory or explanation of this remarkable fact. It is an undoubted truth which cannot be called into question. Nor can you explain it away upon the supposition that the chess might have sprung up from the ground, and finally, supplanted the wheat. This assumption would only be throwing the difficulty further back, and not at all remove it. It would amount to this, *the seed was wheat when sown, but it came up chess.* It had been previously cleared by a fanning process, of every appearance of chess, so that none, or very little was sown with the wheat, and the ground had been a clover field.

You perceive, therefore, that this question is not "without facts to warrant it," but is substantiated by the "most unequivocal and positive evidence:" for I consider that *one fact* is enough to establish the question beyond doubt. A Gleaner of Agricultural Knowledge. *Johnstown, Aug.* 10th, 1849.

We are willing to take the circumstances of the above supposed case of transmutation, just as they are related, protesting, however, against the conclusion. We are willing to admit that the ground spoken of was sowed to wheat which had "none or very little" chess among, it, and that when the crop was cut, there was but very little wheat in it. But after these admissions the question rises—Did the chess come from chess, or did it come from wheat? Which is most reasonable, or most in accordance with known natural laws? All observation teaches that plants reproduce their own species—that they do not produce those of distinct genera or species. Now there is no necessity of violating this law to account for the production of chess in the above case; the thing can be done much easier in various other ways. The seed of the chess may have been partly carried on the ground in the manure, and more or less of it may have remained in the ground from former crops or plants of chess which had grown there. Chess is more hardy than wheat, and when the latter died out, the former spread and occupied its place.

If our correspondent should visit any section of country and find it occupied by *men*, and on repeating his visit, after an interval, should find it occupied by *monkies*, he would hardly attempt to account for the change on the supposition that the men had been "converted" into monkies—even though he could not tell where the latter had come from, and yet this notion would not be more at variance with known physiological laws, than that of wheat changing to chess. Eds.

Crops in New Hampshire.

Eds. Cultivator—In regard to the crops in this vicinity, there is as a general thing, no good cause for complaint. It is true that on light sandy land the severe drouth has caused the grass and grain to be very

light, but on our hill land it has been otherwise. There has not been an average yield of hay, probably not more than two-thirds as much as was cut last year; but last year's crop was unusually large. Grain is good, wheat especially so. On account of the drouth, the straw is short, but the heads are well filled and the grain plump. I think there has not been so good a yield for more than ten years, excepting in 1846, which was about the same. The abundant rains that we have had since the 10th of August has been just the thing for corn and potatoes; and they now promise well. As far as we can judge, there will be a fair crop of these two valuable productions. I have not heard of any appearance of the potato disease. There is an uncommon scarcity of fruit. W. L. EATON. *East Weare, N. H., September* 3, 1849.

Hybridization.

A valuable article appeared sometimes since in the *London Horticultural Magazine*, on the subject of hybridizing plants. Many of the observations of the writer are particularly deserving attention, and we offer some extracts, with a few additional remarks:

"In a practical point of view, the power of producing hybrid plants is one of the most important means which man possesses of modifying the vegetable races, and adapting them to his purposes. To it we owe some, indeed many, of our most beautiful garden flowers, as well as the most valuable of our fruits and vegetables.

"The operation of hybridizing plants, consists in fertilizing the stigma of the flower of one plant with the pollen of another of different though allied characters. The effect of this when the cross fecundation is actually effected, is to originate a new form, usually possessing properties and characters intermediate between the parents.

"It is, however, only between species in which the degree of relationship is somewhat close, that this intercourse is effected; and as a rule, those plants which accord most fully in general structure and constitution, will most readily admit of artificial union. Species that are very dissimilar, appear to have some natural obstacle which prevents mutual fertilization; and *this obstacle becomes insurmountable in the case of very different genera.*

"It has been thought that a law, very similar to that which obtains among animals, also regulates the production and fertility of mule plants; and so far as observations have been made and recorded, this seems, as a general rule, near the truth. Thus two distinct species of the same genus of plants will, in many cases, produce an intermediate offspring, perfect, as far as regards the exercise of the vital functions, but defective as regards the power of perpetuating itself by a seminal process. Even when, in the first generation, this sterility is not apparent, it becomes so in the second, and less commonly in the third or in the fourth generation. Such mules may, however, [sometimes,] be rendered fertile by the application of the pollen of either parent, the characters of which then become assumed by the offspring; in other words, the bybrid form reverts to one of its parents."

The idea above alluded to, that a similar law prevails among plants and animals, in regard to cross-breeding, is supported by many facts. The sterility of hybrid plants is strikingly analogous to the sterility of hybrid animals—as the offspring of the ass and horse; and various hybrids among birds—the produce of the wild (Canadian) and domestic goose, of the Muscovy and common duck, &c. The organization of these hybrids, (as is remarked in regard to plants produced by cross-fertilization,) seems to be perfect, except that they are defective in the power of procreation.

But this tendency to sterility is not confined in animals to the offspring of distinct *species*; it appears not unfrequently in cross-breeds from widely-differing varieties, and more or less in all individuals, which, from whatever cause, show a marked departure from the natural type. Hence the sterility of monsters, and a general weakness of the virile powers in all animals which have any particular organs, disproportionately developed.

Again, the characters of cross-bred animals, like those of cross-bred plants, are often imperfectly developed in the first generation; and there is for a time considerable tendency to "sport," or vary. Experience has demonstrated that this tendency may be chiefly overcome by long continued skill and judgment in selecting and coupling, and a new and well defined sort or breed ultimately obtained. KNIGHT accomplished this in the production of various new kinds of cherries, apples, pears, and currants. The same thing has been done in this country with beans, peas, Indian corn, potatoes, turnips, &c. So in regard to animals; BAKEWELL and others have, by crossing, obtained new breeds of horses, cattle, sheep, swine, and poultry; some of which have proved of great value.

The writer above quoted offers various conclusions as to the results of crossing plants; one of which is, that "crossed plants being often less fertile, are in the same proportion more luxuriant, and produce larger flowers." Is there not something analogous to this in the rapid growth and thrift of animals, which are produced by what is called a "strong cross?"

Race's Self-Registering Stove.

We notice, in various parts of the country, that great and constant inconvenience is experienced by the unequal temperature of rooms heated by stoves. This in-

7.—RACE'S STOVE.

convenience is still greater where sheet-iron stoves are used, which otherwise possess the advantage of saving fuel, and warming up quickly a cold room in the morning.

We have found, from some years of trial, Race's Self-Registering Stove, to possess all the advantages of heating a room from zero to summer heat in five minutes after a fire is kindled, and then maintaining this temperature with scarcely a degree of variation, throughout the day. With rather coarse wood, it needs no replenishing for hours together; and will keep a room

warm all night without attention, except throwing in at bed-time two or three large sticks of wood. The register needs registering only to adopt the heat to the nature of the weather, which may perhaps be necessary once or twice a day, and is done in one second. As for economy, we obtain the same heat with about half the fuel formerly needed for a good hot-air furnace with eight drums and air-pipes a foot in diameter. One stove heats three rooms night and day, seven months, with about six cords good wood.

To prevent the rapid accumulation of soot, the pipe should be as nearly vertical, or with as few elbows as possible; and to avoid the dropping of pyroligneous acid, each joint of pipe should enclose, instead of fitting in, each piece above it. Puffs of smoke are prevented by putting in a moderate quantity of wood at once, so as to allow a very slight draught of air.

Ashes and Lime---Experiments.

Wm. H. Ross, of Sussex Co., Del., who has used over 40,000 bushels of ashes within the last five years, gives some of the result of his experiments, in the *American Farmer*. In one instance, ashes were applied to an exhausted field, cleared more than sixty years, and never manured. Squares of a half acre each were marked off for each experiment, the quality being alike. The following were the results, the ground being planted with corn.

25 bu. of ashes	per half acre,	gave	20 bu. ears.
50 bu. "	"	"	20 bu. "
25 bu. of lime	"	"	15 bu. "
50 bu. "	"	"	15½ bu. "

Two squares, unmanured with either, each, 10 bush.

The second year, about the same rate of difference continued. In this experiment, 50 bushels per acre were found about equal to 100 bushels. But in all other experiments, 100 bushels of ashes were found better than 50, and 200 better than 100, although so large a quantity was not found profitable. But with lime, little difference could be perceived between 50 and 100 bushels per acre. In some instances, lime produced no good result. Ashes, on the contrary, invariably produced a decided benefit, whether on poor or rich land.

His farm, containing 400 acres of arable land, has doubled its products in five years, chiefly by the use of lime and ashes. But other manuring was found necessary.

The following experiment gave interesting results. A field of very poor land was manured, a part with mould from the woods 100 *loads* per acre; a part with ashes 100 *bushels* per acre; and a third portion with both. Where the ashes and mould were combined, the corn was more than twice as good as where the ashes were spread alone; the ashes alone gave corn 50 per cent. better than the undressed parts of the field; while the mould alone produced scarcely any sensible effect. A dressing of 100 loads of mould from the woods, 50 bushels of lime, and 100 of ashes, generally increased the corn crop more than 20 bushels per acre, and wheat in the same ratio; and so permanent are the effects of this mixture, that he believes its effects will be seen for 20 years.

The soil on which these experiments were made was chiefly sandy loam, with some clayey portions; on the latter, lime was found most beneficial. Similar experiments would doubtless give different results in other places, where the constituents of the soil vary in character and quantity.

Increase of Exports.—For the last four months of 1848, the exports of flour were about *seven times* as great as in the same corresponding period in 1847; of wheat, *seven times* as great; of corn more than eight times as great, and of meal, a little less.

Fattening Cattle in Virginia.

In *The Cultivator* for May last, we gave an extract from a letter received from Mr. Noland, of Virginia, in regard to fattening cattle. It appears that the "Agricultural Club of Albemarle" appointed a committee to make inquiries in regard to the business, and of their report we give the following abstract from the *Southern Planter*:

William Garth fattened 166 head, commencing 20th October, 1848.

Expenses.

150 bought at $27,	$4050 00
11 raised 4 years,	275 00
5 " 3 years,	100 00
Total cost,	$4425 00
Feeding of 91 at Birdwood Farm—	
2442 bushels of corn, at 40 cents,	976 80
300 " oats, at 25 cents,	75 00
965 " bran and shorts,	96 50
	$1148 30
Feeding of 75 at Midway Farm,	924 62
Cost ready for market,	$6497 92
Interest on outlay, expense of driving, charges in Washington, Baltimore and New-York, commissions, &c.,	1362 64
Total debits,	$7860 56
Total amount of sales in New-York,	8330 76
Profit in cash,	$470 20

Besides 1500 heavy loads of manure. Two hundred fattening hogs gleaned after the beeves, and half of their usual food was saved. The manure was applied to land that would not bring four barrels of corn to the acre. It was sufficient to have covered one hundred acres of the average land of the farm. Mr. Garth's statement was drawn up with great minuteness. Of course, we give but the outline.

R. W. Noland fattened 20 bullocks.

Cost, at $29.60 each,	$592 00
104 barrels of corn, at $2,	208 00
100 bushels of oats, at 25 cents,	25 00
200 " bran, at 10 cents,	20 00
Interest on outlay,	14 00
Total expenses,	$859 00
20 beeves sold at home for	998 14
Leaving profit, besides manure,	$139 14

W. W. Minor fattened 43 bullocks.

36 cost $26.53 each,	$954 08
3 cost $12.92 each,	64 60
2 old steers, estimated at	50 00
Interest on outlay,	32 00
Fed 22 bushels corn per head, and 20,000 lbs. of hay,	465 32
Total expenses,	$1566 00
Sales,	1586 93
Profit in cash, only,	$20 00
Besides 200 loads manure, worth	$200 00

Manuring by Pasturing Sheep.—Sheep usually select the dryest spot for the night, which thus receives an undue proportion of their manure. This is remedied in England by hurdles, but a simple and easy mode, stated by the Michigan Farmer, is to go into the field just at bed-time, and frighten the sheep from their accustomed resting place with an umbrella; they immediately drop in their tracks and remain till morning.

Sales at the State Fair.

Sales in stock, implements, &c., were made to a very large extent at the late State Fair. It is probable that property of various kinds to the amount of fifty thousand dollars changed hands on the show-grounds. This indicates that this feature of our exhibitions will have an important influence in sustaining them. It is the best opportunity for buying and selling which can be afforded, especially on account of the means of comparison which are here available.

We have received authentic accounts of but few of the sales. We are told there was a large trade in horses, and have heard of several pair of matched horses being sold at good prices—from $600 to $1000 each pair. The Morgan stallion General Gifford, was sold by G. A. Mason to C. W. & M. H. Ingersol, of Lodi, Seneca county, for $1000. Mr. Mason afterwards bought the Major Gifford, of Mr. Blodgett, of Chelsea, Vt. A fine three-year-old filly of the same stock was sold by Mr. Wier for $200.

A superior two-year-old colt, by Black Hawk, was sold by H. H. Hall, of Bridport, Vt., to David Deuel, of Shelby, Orleans county, N. Y. This animal attracted much attention. His dam was said to have been a cross of the English blood horse, and the colt in question showed the points of that stock beautifully blended with those of the Morgan, derived from his famous sire.

The sales of cattle in the different classes were extensive. Mr. Bell's short-horn bull, which took the second premium, was sold to Mr. Thorpe, of Albany, for $400. He is a fine animal. Col. Sherwood sold several bull calves at $100 each; Mr. Morris, of Morrisania, and Mr. Allen, of Black Rock, several cows and heifers.

In Herefords, Messrs. Sotham and Bingham sold several bulls and cows from $100 to $125 each.

In Devons there was a brisk trade. The splendid Devon bull exhibited by Mr. Gapper of Canada, was sold to Mr. R. H. Van Rensselaer, of Butternuts, Otsego county. We are glad that this fine animal has been retained within the state. Mr. Gapper's bull calf was sold to Hon. Mr. Mowry, of Rensselaer county, who also purchased a fine heifer of Mr. Stevens. Mr. Beck, Mr. Washbon, and others, sold calves and young stock at from $40 to $80 each.

We were informed that large sales in sheep were made by Messrs. Bingham, Blakeslee, and other breeders of Merinos, and that liberal sales of Leicesters were made by Mr. Miller, of Canada, as well South Downs by Mr. Wakeman, and others.

The dealers in implements also sold largely. The sales of Mr. Emery amounted to $1500 on the grounds, besides contracts to about $1000 more; and we learn that a good business in this line was driven by most of the exhibitors. The purchasers were from many parts of the country; many from the western states—Ohio Michigan, Wisconsin, Illinois, &c.

Albany & Rensselaer Horticultural Society.

The Annual Exhibition of this Society was held at Albany on the 19th and 20th of September. The show of fruits and flowers was decidedly the best ever made by the Society, and was, indeed, highly creditable to our cultivators, and encouraging to all interested in horticulture and floriculture. In fruits, we noticed the splendid collection of H. Vail, Esq., of Troy, embracing 37 varieties of pears, 28 of apples, 24 of peaches, 4 of native grapes, 4 of foreign do.,—all very choice and beautiful specimens. S. E. Warren, Esq., of Troy exhibited a very handsome collection of various kinds of fruit, among which were 15 varieties of plums, 11 of peaches, several kinds of nectarines, samples of figs, &c. The President of the Society, Joel Rathbone, Esq., exhibited fine specimens of grapes and other fruits. The display of peaches and plums was uncommonly fine. Among the former we noticed, besides those above mentioned, those offered by Mr. Kirtland and Mr. Aiken, of Greenbush, Mr. Prentice, Mr. J. S. Goold, Mr. E. Corning, Jr., and Mr. Thorpe, of Albany. The exhibition of plums was large and fine. The display from the noted garden of Mr. Denniston numbered 32 varieties, nearly half of which were seedlings originated by himself. Several of these are still unnamed, though from their peculiar and valuable qualities, well worthy of cultivation. Mr. McIntosh showed a large collection of fruits, embracing pears, grapes and plums. Among the latter was an excellent late variety, which we shall speak of again. Mr. Douw had a fine collection, among which were 15 choice varieties of plums. Dr. Wendell showed many kinds of pears, apples, &c. Many handsome specimens of plums, grapes, &c. were shown by Mr. Prentice, Mr. Platt, Dr. March and Mr. Cary. Dr. M. had specimens of the White Magnum bonum which weighed four ounces each.

Fine melons of various kinds were shown by Mr. Rathbone, Mr. Prentice, Mr. John Wilson, Mr. Goold, Mr. Kirtland, and Dr. Wendell.

There was a fine show of vegetables, which we have not room to notice in detail. The principal exhibitors were Mr. J. S. Goold, Mr. Prentice, Mr. John Wilson and Dr. Wendell.

The display of flowers was very brilliant—far better than was expected considering the severity of the drouth which continued into August. Beautiful floral candelabras were shown by Mr. Rathbone, a handsome and tasteful floral temple by Dr. Wendell, a rustic moss-covered cottage, by Mr. D. T. Vail, Troy, and very handsome bouquets of various forms, by Mr. James Wilson, Mr. Vail, Mr. Rathbone and Mr. Newcomb. Splendid collections of dahlias and other flowers were shown by Mr. D. T. Vail, Mr. Jas. Wilson, Mr. Newcomb, Mr. Dingwall, and others. A variety of dahlia called Beauty of Sussex, an elegant specimen of which was shown by Mr. D. T. Vail, attracted great attention.

Death of Rev. Henry Colman.

Most of the papers have already announced the death of our esteemed countryman, Rev. H. Colman. He died on the 17th of August last, at Islington, near London. He went out to England in May last, for the purpose of obtaining materials for the completion of a work on the institutions and social condition of Europe. Just as he was about to return, he was seized with a fever, and survived but a short time. He was widely known, both in this country and abroad, for the interest and zeal he had for many years manifested in the cause of Agriculture. We cannot at this time, particularise in reference to his writings on this subject, which have been voluminous and extensively read. As a man, he was esteemed wherever he was known for his benevolent spirit, and bland and easy manners. Various tributes to his memory have appeared from the American press, and the following extract from the London *Mark-Lane Express* will show the favorable light in which he was regarded in England:

"It is with extreme regret that we announce the death of Mr. Henry Colman, of Salem, Massachusetts, U. S. Mr. Colman had been resident several years in this country and upon the continent of Europe, whither he had gone for the purpose of acquiring a knowledge of European agriculture, and which he diffused through the United States by means of a work published in parts, and which he completed a short time since. Mr. Colman was personally known to, and had been entertained at the houses of many of our leading landed proprietors and tenant farmers. His moderate opinions and unassuming manners rendered him a general favorite with ourselves and many who will deplore his loss."

Death of Thomas Bates, Esq.

Eds. Cultivator—Allow me herewith to furnish you for publication, an extract of a letter I received from England, by the arrival of a recent steamer, addressed to me by Robert Bell, Esq., dated Kirkleavington, 22d August. He remarks—"It is my most painful duty to announce to you, that our late much esteemed friend, Thomas Bates, Esq., is no more. His spirit returned to God who gave it, on the 26th July last, after an illness of six weeks. It may be said of him his country has met with a great loss; more particularly its agricultural community, as he was a practical agriculturist of a discriminating mind, and great experience. He more particularly excelled in the science of breeding,—especially in the breeding of Short-horn cattle. He, early in life, evinced a lively interest in this department, and by nature, he seemed highly qualified, not only to become conspicuous, but successful, in this branch of his profession, and the result of his 60 or 70 years of practical application, placed him in the front ranks of the most successful breeders England has ever produced. The wide spread reputation and standing of his Duchess herd of Short-horns, is well known and appreciated. The public will now have a full opportunity to judge of their merits, as they will be offered for sale at auction, probably next spring, or summer. The time of sale is not fixed, but as soon as it is, I will take the earliest opportunity of informing you. I intend offering part of my herd, and that of my brother's, at the same time; probably the number offered will amount to 150 head."

Having myself, sold many cattle to gentlemen in the United States and in Canada, possessing the blood of Mr. Bates' herd, I presume the intelligence contained in the extract of Mr. Bell's letter will be of much interest to them. Hence, allow me to ask the favor of its insertion in *The Cultivator*. Geo. Vail. *Troy, September* 15, 1849.

Answers to Correspondents.

Apples cultivated by the late Mr. Phinney.—Eds. Cultivator—You may inform your correspondent, "S. W.," in answer his inquiries about Mr. Phinney's Orchard, that the most valuable varieties of sweet apples that have yet come to bearing, are the following: Bough, (early ripening;) Plum water, (fall ripening;) Danvers, or Essex Green-Sweet, (winter ripening;) Andover Sweeting, (winter ripening.) Several other generally approved varieties of sweet apples have not yet come to bearing and therefore not determined. Nothing is placed around the trees to prevent injuries in plowing and harrowing the land. The work is done with oxen, and the strictest care enjoined upon the workmen. No injury has ever been done to the trees in cultivating the ground. F. Holbrook.

Poultry in Yards.—"A Subscriber," New-York. It is true, as has been often stated, that when large numbers of fowls are kept together in close confinement, they are often affected by diseases. Care should be taken that the yard and houses are exposed to a free circulation of air, and that they are kept as clean as possible. The different apartments should be white-washed once or twice a year, and the manure should not be allowed to accumulate, as the gases which arise from it during fermentation are detrimental to the health of the fowls.

Eradication of Garlick—Eds. Cultivator—I observed an inquiry in the June number of *The Cultivator* for the best method of destroying the wild onion or Garlick. As this has not been answered by any of your correspondents, I will briefly state what I have done and the result.

I have adopted a rotation of summer cropping; say, one year corn, next potatoes, next oats, with clover seed, seeding pretty heavily, and plastering the clover. Let it lie one year—then repeat the same course. I had a field very full of the wild onion, which I treated as above mentioned, and at the end of my second course the plant had entirely disappeared, and I have seen none since, although this was done more than 20 years ago. Nathaniel Beckwith.

Domestic Economy, Recipes, &c.

Sewing Machine.—The editor of the Michigan Farmer witnessed the operation of a sewing machine, only a foot in length and breadth, but traversing a frame-work of several feet. A small crank moves it, which a child may turn. It contains a combination of "the wheel, lever, and spiral spring;" the eye of the needle is near its point; the thread is coiled with a cylindrical case; and the needle being once threaded, supplies itself till the skein is exhausted. A pair of pantaloons can be made by it (without buttons and button holes) in thirty minutes, and an overcoat in an hour and a half.

Patent Bread-Making Machine.—A machine for making bread is said to have been invented in Glasgow, Scotland, of which we find the following account in a foreign paper: It has for its object the accomplishment of the following among several other points of importance in the manufacture of bread or biscuits. 1. By the substitution of carbonated water for yeast, to render bread more nutritive. 2. A saving of 50 per cent. in the cost of fuel in heating the oven, by means of an improved method of substituting steam for fire. 3. The gradual admixture of the flour with the water without manual labor. 4. To insure the oven being kept of an equal heat by means of an indicator and regulator, and by means of which the heat can be kept exactly as may be desired. 5. An invention for placing the bread in and removing it from the oven. 6. By the use of an ingenious contrivance to regulate the desired weight of all bread, whether from an ounce to any number of pounds the baker may desire, without the possibility of error. 7. The saving of all manual labor in the manufacture of bread, with the exception of that of a few boys to place it upon, and receive it from the machine. 8. The avoiding of the necessity of the human hand touching or kneading the dough.

To Cook Cucumbers.—The Michigan Farmer recommends the following mode of converting cucumbers into "a delicate and delicious article of diet:"—Take cucumbers pretty well grown, and cut them into slices half an inch thick; put them into a vessel with a "fair proportion" (?) of sliced onions, with a lump [how large?] of butter, and stew them three quarters of an hour, adding salt and pepper, but using at no time any water.

Bed-rooms.—A correspondent of the Prairie Farmer, urging the importance of spacious bed-rooms, very justly recommends the rejection of such a room as a parlor, where plenty of room for both cannot be afforded. "The parlor is the best room in the house, and used only once in a week or two, while the bed-room is in use at least one-third of every twenty-four hours. A bed-room, for health and convenience, should be large, with a high story, and 16 by 16, or 16 by 18 feet, with no furniture but dressing table, toilet, wash-stand; with it should be connected a wardrobe, and bathing tub and shower-bath. These are daily comforts, and not kept for the use of others, as a parlor."

Notes for the Month.

COMMUNICATIONS have been received since our last, from Wm. Jennison, Jas. R. Hammond, Darwin E. Gardner, S. Worden, W. L. Eaton, A Subscriber, Josiah W. Ware, M. W. Phillips, R. Watkins, Nathan Beckwith, John A. Porter, S. M. Norton, H. Watkins, W. R. S.

H. K. C., Cherokee Nation.—We cannot furnish "The Cultivator," for 1848, singly, the numbers for that year, together with the engravings, plates, &c. having been all lost by the fire which destroyed our office. We have succeeded in purchasing some vols. for that year, to complete sets of our work, so that we can furnish orders for *all* the back vols. All the vols., except the one for 1848, can be had singly.

THE AMERICAN FRUIT CULTURIST, containing directions for the Propagation and Culture of Fruit Trees in the Nursery, Orchard and Garden, with descriptions of the principal American and Foreign varieties, cultivated in the United States. By JOHN J. THOMAS. Illustrated with three hundred accurate figures. Auburn: DERBY, MILLER & Co.

We have received a copy of this work from the publishers, DERBY, MILLER & Co., Auburn, who have got it out in good style. It makes a handsome duodecimo of over 400 pages, and is sold at $1.00. The readers of "The Cultivator," who are familiar with the writings of Mr. THOMAS, on the subject of horticulture generally, will need no commendation from us, to induce them to procure it. We may, however, say that few men in our country have given more attention to the subject of Fruit in all its aspects, than Mr. THOMAS. In the volume before us, we have the results of his experience and observation, continued with untiring perseverance for many years, in language at once concise and perspicuous; and we cannot doubt but that it will be deemed a valuable acquisition to the literature of this branch of rural improvement.

THE CHRISTIANA MELON.—We are indebted to HENRY VAIL, Esq., Mount Ida Farm, Troy, for some specimens of a very fine melon of this name. It is of about a medium size, as compared with the nutmeg and citron varieties, rather egg-shaped; skin thin, of a pale-green color; flesh thick, of a deep orange yellow, sweet, melting, and high flavored. It is decidedly the best yellow-fleshed melon we have ever seen, and scarcely inferior to the best of any kind. It is early, coming to perfection, as Mr. VAIL informs us, two weeks before any other good variety.

SCIENTIFIC SCHOOL.—We have received a prospectus of an institution entitled "Scientific School of Useful Knowledge," located at Darien Centre, Genesee county, N. Y. The Institution embraces a male and female department, each distinct and separate from the other. The department for boys has three divisions, called the Classical, Commercial and Agricultural. In the first, young men are fitted for college; in the second they are taught the principles of trade, book keeping, &c.; in the third, agricultural chemistry, natural history, &c. The course of studies for females is appropriate and designed to embrace the term of three years. The Institution is under the charge of Rev. D. M. Smith, whose testimonials for so important a trust are numerous, and from high sources.

THE HOMER CAR.—We have mentioned in another place that there were twenty yoke of working oxen exhibited at the State Fair, from Homer, Cortland county. These oxen came on in one team, attached to a large car, of octagonal form, ornamented with wreaths of evergreens and flowers, and containing handsome specimens of fruits, vegetables, grains, &c., the produce of the town from which it came. It was surmounted by a flag, and made an imposing appearance as the noble team drew it to the field.

CORN FOR SEED.—Corn for seed ought to be gathered in September. It should be *selected* in the field, as a much better opportunity is here afforded for obtaining the best, than if it is taken from the heap after it is husked. In the field we can see all parts of the plant, and can judge whether it possesses the characters we desire to propagate. The most perfect ears should be chosen. They should be sufficiently early, and should be taken from stalks of moderate size—the ears rather low on the stalk. The ears designed for seed can be secured as soon as the grain is fairly glazed, by cutting the whole stalk, near the ground, and hanging it in some airy room or shed. The grain will be supported by the sap of the stalk and will fill as well as if it had remained in the field.

REAPING MACHINES.—The Prairie Farmer says—"McCormick's Reaper has been now sold in the west for three seasons extensively, and somewhat before that. The sales amount, say, to the following figures: For the year 1847, to 500; the year 1848, to 800; and 1849, to 1500; total, 2800. Of Easterly's Harvester, the whole number in use this harvest may reach 180. Other kinds, say 100. These all do the work of nearly 17,000 men."

HILLING POTATOES—THE ROT.—Our potatoes are very free from the rot. It has been thought that the exemption is owing to the manner of hilling them,—so that the rain is turned off as much as possible, and the tubers not allowed to soak in wet weather. We formerly made the hills like a basin to catch the rain; but now they are made in the shape of a cone. There may be something in it; for the ground was well manured, which I believe has generally proved unfavorable. [Extract from a correspondent.]

LONG-WOOLED SHEEP.—N. S. Townshend, in a communication to the *Ohio Cultivator*, states that the Leicester sheep do *not* consume a proportionate amount of food in proportion to their bulk—that being hardier and healthier, their flocks may be increased much faster—that besides the excellent quality of the mutton, he has weighed single animals of 300 pounds—and that a whole flock will average 6 lbs. of wool a piece, the rams often shearing 10 or 12 lbs., and that the wool sold this year at Elyria for 23 cents per pound.

PEAT CHARCOAL.—The value of peat charcoal is attracting much attention in England, not only as a manure or fertilizer of itself, but also as a deodoriser or disinfectant. Mr. J. W. ROGERS, of Dublin, has for some time been engaged with experiments of this substance. When he first brought the matter before the public, in 1845, it was alleged that charcoal could not impart carbon to the roots of plants, as the leaf was supposed to be the only medium by which plants could absorb such food. He states that he has often tried the experiment, and that the result has invariably been that both the root and leaf took the carbon. He concludes, from his experiments, that peat charcoal possesses some valuable properties which wood charcoal does not, particularly as a deodoriser. Its absorbent power is very great. Mr. Rogers states that it will take up and retain from 80 to 90 per cent. of water, and from 90 to 100 volumes of noxious gases arising from animal excrement and other putrescent matter.

OSAGE ORANGE.—The editor of the *Valley Farmer* thinks that this plant has not been sufficiently tried to justify the judicious farmer in the extensive cultivation of it. He thinks those farmers who are unwilling to

prune their fruit trees, will be likely to neglect their hedges; and that the Osage orange, without pruning every year, will become overgrown and occupy too much space; will die out in places and leave gaps. This may be true; but where materials for fencing are scarce, we think farmers, who understand the management of hedges, and will give them proper attention, will do well to make a trial—at first on a small scale—with the Osage orange.

Fine Fruits.—We have received of J. W. Ford, Esq., of this city, by the politeness of Hon. Mr. Bush, fine specimens of the Brown Beurre, and White Doyenne or Virgalieu pears. Also, from Mr. McIntosh, of this city, Brown Beurre and Gansell's Bergamot pears of large size and fine quality. The latter gentleman, and Mr. Joseph Cary, of this city, have favored us with excellent specimens of the Royal Muscadine, White Sweet Water, Black Cluster, and Isabella grapes, well ripened in the open air.

☞ We tender our thanks to Mr. E. E. Platt, for a liberal donation of fine plums from his garden on Arbor Hill.

Causes of Decay in Timber.—In *The Gardeners' Chronicle* of June 30th, 1849, is an able and valuable article, under the editorial head on this subject. It was probably written by Professor Lindley, the well-known editor of that journal. In the *American Agriculturist* for September last, we find the principal part of the same article, inserted as original, under the signature of "B."

"Escutcheons" of Cows.—J. N. Pierce asks the editor of the *Ohio Cultivator* what he thinks of Guenon's Treatise on Milch Cows; and adds, that the observations he has made since reading the work, do not agree with the rules there laid down.

Subsoil Plowing.—Ex-Governor Hill states in the *Visitor*, that he has found great benefit from subsoil plowing on the "driest plains" near Concord, N. H. He states that in a field of potatoes on these plains, the past season, he found the length of the potatoe-vines a "sure index of the depth of the plowing." Wherever the ground was cheated of the subsoil plow, upon a balk, or in the field, the vines were as much shorter, as the soil was stirred a less depth." He gives the result of an experiment in subsoiling made several years since. The ground was plowed with a surface plow, eight inches deep, and a subsoil plow run in each furrow eight inches deep. He left two strips, a rod wide, not subsoiled. He had taken six crops from the field—three of grass, one of oats, one of corn—and the inferiority of each crop on the portions not subsoiled was apparent, and could be seen at the distance of forty to fifty rods. The subsoiled part gave from two to three tons of hay to the acre.

Sowing Grass Seed in Autumn.—The American Farmer recommends for the late sowing of timothy seed, that a peck of *buckwheat* per acre be sown at the same time. The frost will cut the buckwheat down, where it will remain to protect the young plants through winter.

Salt for Asparagus.—The editor of the New England Farmer says that asparagus will bear one hundred and sixty bushels of salt per acre, and be greatly benefitted by the application—and that cabbages and turneps are much benefited by salt.

Farm School.

THE *Mount Airy Agricultural Institute* will commence its winter session on the first Thursday of October next.

The course of instruction pursued is such as to insure to the student a thorough knowledge of the *Natural Sciences*; collateral with a full practical course on the farm, in all the labor of which the students participate.

For further particulars address the Principal.

JOHN WILKINSON,

Sept. 1, 1849.—2t. *Germantown, Pa.*

Prices of Agricultural Products.

New-York, Sept. 20, 1849.

FLOUR—Genesee, per bbl., $5.25*a*$5 37½—Common State and old mixed western, $4.75*a*$4 87½

GRAIN—Wheat, Genesee, per bush., $1.17—Southern Red, $1.03*a*$1.08—Corn, Northern and Jersey, 59½*a*61.—Rye, 58c.—Barley, 67c.—Oats, new, 36*a*38c., old, 39*a*40.

BUTTER—best, per lb., wholesale, 18*a*20c.—western dairy, 14*a*16c.

CHEESE—per lb., 5*a*7c.

BEEF—Mess, per bbl., $12.50*a*$12.75.

PORK—Mess, per bbl., $10*a*$10.12—Prime, $8.50*a*$8.62½.

LARD—per lb., in kegs, 6½*a*6¾c.

HAMS—Smoked, per lb., 8*a*11½c.

HOPS—per lb., first sort, new, 15c.

COTTON—Upland and Florida, per lb., 9*a*11½c.—New Orleans and Alabama, 9*a*11½c.

WOOL—(Boston prices.)

Prime or Saxon fleeces, per lb.,	40*a*43c.
American full blood Merino,	35*a*37c.
" half blood do.,	30*a*32c.
" one-fourth blood and common,	27*a*29c.

Remarks.—Breadstuffs are in fair demand for the local trade and for the east. In provisions the trade is without much change. The latest arrivals from England, represent the harvest as excellent, and the weather very favorable for securing it.

South Down Sheep

FOR SALE. Ten full blooded South Down Rams, from Lambs to four years old. Also 20 Ewes, from yearlings to four years old.

The subscriber has spared no expense and care to raise the flock to a high standard, and he, therefore, offers them for sale with confidence in their merits.

Application may be made, either personally or by letter, addressed. JOHN McD. McINTYRE.

Oct. 1—2t. Albany, N. Y

Highland Nurseries, Newburgh, N. Y.

Late A. J. Downing & Co.

THE Proprietors beg leave to inform their patrons, and the public in general, that their stock of

Fruit & Ornamental Trees, Shrubs, Roses, &c.,

For autumn planting, is unusually large and thrifty, and embraces all of the best varieties introduced into notice in this country or Europe, of Apple, Pear, Plum, Cherry, Peach, Nectarine, Apricot, Grape Vines, Gooseberry, Currants, Raspberry, Strawberry, &c.

Portugal Quince trees, standards, extra size,	each,	$1 00
" " quenouille,	"	"	1.00
Angers. (*true*) extra,		"	1.00

Trees of the usual size, 50 cents.

The stock of Ornamental Trees, Shrubs, &c. is very large, and quantities to dealers, or planters on a large scale, will be furnished at greatly reduced rates.

Hedge Plants.

A large lot of Buckthorn and Osage Orange plants.

Also, a large lot of Rhubarb and Asparagus roots.

The entire stock has been propagated under the personal supervision of A. SAUL, whose long connection with this establishment is some guarantee, from the reputation it has gained, *and the present proprietors are determined to merit*, as to the *genuineness* and accuracy of the present stock.

Orders respectfully solicited, and will receive prompt attention, which will be carefully packed and shipped to any part of the Union, or Europe.

Catalogues furnished *gratis* to *post paid* applicants.

Newburgh, Oct. 1—2t. A SAUL & CO.

Prince's Linnæan Botanic Garden & Nurseries,

Flushing, N. Y.

WM R. PRINCE & CO., successors of Wm. Prince, and sole proprietors of his great collection, offer the largest and choicest assortment of

Fruit and Ornamental Trees and Plants,

To be found in America; and will transmit *Descriptive Catalogues* to all post paid applicants, desirous to purchase.

The choicest varieties of fruit which are scarce elsewhere, are here extensively cultivated and applicants will not be disappointed. Every desirable fruit enumerated by Downing, Manning, Kenrick and Hovey, and in the catalogues of Europe, can be supplied. Of the finest varieties of Pears, 50,000 trees can be supplied, of which 15,000 are of bearing age on both the pear and the Quince. Purchasers are solicited to visit the establishment, and judge for themselves: but the same attention will be paid to the selection for all distant correspondents. The prices are as low, and mostly lower than trees of equal quality can be elsewhere obtained. And above 500 varieties of Fruit Trees, and a much larger number of Ornamental Trees can be supplied, that cannot be obtained elsewhere in the Union, except in a few casual instances.

Every premium for Roses and Strawberries, was awarded to us by the Long Island Horticultural Society.

A Wholesale Catalogue will be sent to all venders.

The transportation expense to the West is now moderate, and the Agents' Receipt will be sent to each purchaser, which will prevent the possibility of loss. Cash or a reference can be sent with the order, by those who are strangers to us.

Oct. 1—1t.

Private Boarding School,

Reading Ridge, Fairfield County, Ct.

THE next session of this Institution opens on the first Wednesday in November next. Course of instruction embraces all the English branches, together with Latin, Greek, French and Music. There is an excellent farm connected with the school, and students will be instructed in Agriculture if desired.

The terms are $80 per session of five months, including board, tuition, washing, &c , &c.

Circulars may be had of Charles Ames, 104 Broodway, New-York, or by addressing the principals.

DANIEL SANFORD, Jr., } Principals
A. M. SANFORD, }

Oct. 1—1t.

Employment Wanted.

ANY one who wishes to pay a good price for an active and industrious hand to manage a farm, one who has studied the principles and practice of modern farming, who can construct and repair buildings and implements, who is 27 years old and has a small family, address, *post paid*, CHARLES BETTS,
Burr Oak, St. Joseph Co., Mich.

Good references given and required. Oct. 1.—1t.*

Macedon Nursery.

THOMAS WRIGHT, successor to Wm. R. Smith, (whose ill health compels him to relinquish the business,) has purchased the entire stock of this well known establishment, for which he has hitherto acted as agent. The design of the original proprietor, "to furnish the community with the best varieties of Fruits," will be constantly kept in view.

The stock of Trees is now large, and will be sold at the Nursery at the following reduced prices, viz :—

6,000 Apples, $16 per hundred, $18 when delivered.
1,000 Pears, $35 per hundred.
3,000 Cherries, $25 per hundred
3,000 Peaches, rare kinds, $10 to $12 per hundred.
Apple, Pear, Wild Plum, Quince, &c., by the thousand.

Apricots, Nectarines, Plums, Filberts, Quinces, Chestnuts, Walnuts, Strawberries, Grapes, &c., &c., at very moderate rates. A great variety of Ornamental Trees, and Roses, and other Plants are offered at 50 per cent discount from the usual prices Immediate attention will be given to all orders accompanied by cash or satisfactory reference.

Macedon, Wayne Co., Oct. 1—1t.

Patent Railroad Horse Powers and Overshot Threshing Machines and Separators.

NOTWITHTSTANDING the increased facilities for manufacturing the above celebrated machines, which our extensive manufactory recently erected in this city affords, the demand has exceeded the supply.—Upwards of three hundred sets have been sold since the first of June, and to almost all portions of the Western states, as well as our own.

In all and every case, they have given universal satisfaction—and with their long established character for durability and cheapness of cost and efficiency, their utility is no longer questioned. More than one hundred sets have been sold this season in the states of Illinois, Wisconsin and Ohio—several in Indiana and Canada, and but one opinion prevails where they are used. With our liberal terms, as advertised by catalogues and other ways, the purchaser ventures nothing in trying or purchasing them.

Below we give the opinion of Mr. J. A. Wight, editor of the Prairie Farmer, at Chicago, Illinois, than whom a more capable, careful, or independent man in such matters, is not to be found. He was authorised by me to receive orders for the above machines and has succeeded thus far, in forwarding more orders than could be supplied.

The same Mr. Wight was appointed chairman of the committee No. 1 on Agricultural Implements, at the Fair of the State Ag Society at Syracuse, but was detained at home, and forwarded the following opinion in writing, for the use of the committee.

"I have sold about thirty sets of the Railroad Horse Powers and Threshing Machines this season, and a majority of them have gone into use.

"Thus far they are greatly preferred for the following reasons:

"Ease of operation, direct application of the power to the thresher without gearing; safety, ease of keeping in order, ease and cleanliness of feeding—and for the general perfection with which they do their work

"Threshing can be done with one-half or two-thirds what it costs with the large six and eight horse power machines.

"They have given entire satisfaction so far as they have been used here." HORACE L. EMERY.

Mediterranean Wheat.

200 BUSHELS of this variety of Wheat for sale, being a portion of an excellent crop of Winter Wheat, raised for the fifth year on the same farm in Greene county, N. Y.

It is two weeks earlier than the Hutchinson wheat and is always harvested before the Rye crop is ready for the sickle. This season it has done better than heretofore, notwithstanding it has improved in quality and yield.

The grain is large, of light color, and weighs, (this crop through) 64 pounds per bushel. It has never been affected by the Weevil, (or wheat midge,) Fly or Rust. This season, the yield was 23 bushels to each bushel sown

For sale at the Albany Agricultural Warehouse & Seed Store,
Nos. 369 and 371 Broadway, Albany, N. Y.

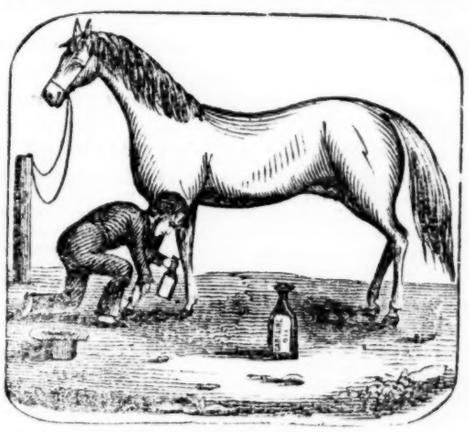
Sept. 1.—2t. By HORACE L. EMERY.

Dorking Fowls.

SUPERIOR Dorking Fowls will be furnished caged, and put on board ship, with food for their voyage, at $5 per pair, by
N. S. PRENTISS,

Oct. 1—1t. Astoria, New-York.

GEORGE W. MERCHANT'S CELEBRATED



Gargling Oil for Horses.

UNPARALLELLED IN THE HISTORY OF MEDICINE AS THE

Most Remarkable External Application Ever Discovered!

TRUE ECONOMY. The unparalleled success of Merchant's Gargling Oil, in the cure of diseases in Horses and Cattle, and even in human flesh, is daily becoming more known to the farming community. It can hardly be credited, except by those who have been in the habit of keeping it in their stables, what a vast amount of pain, suffering, and time, are saved by the timely application of this Oil. There is nothing equal to it in the shape of a remedy for such diseases as

Spavin, Sweeny, Ringbone, Windgalls, Poll Evil, Callous, Cracked Heels, Galls of all kinds, Fresh Wounds, Sprains, Bruises, Fistula, Stiffast, Strains, Lameness, Sand Cracks, Foundered Feet, Scratches or Grease, Mange, Rheumatism, Bites of Animals, External Poisons, Painful Nervous Affections, Frost Bites, Boils, Corns, Contractions of the Muscles, Whitlows, Chilblains, Chapped Hands, Cramps, Burns and Scalds, Swellings, Contraction of the Muscles, Weakness of the Joints, Caked Breasts, &c., &c., &c., &c.

From the peculiar nature of this Oil, and the unparalleled success it has met with in the hands of the

FARRIER, FARMER, AND STAGE PROPRIETOR,

it is but justice to say, that of the great number of medicines that have been offered, none have been so well adapted to the prompt cure of diseases to which horses are liable; it has been very justly called a complete PANACEA FOR THE HORSE. For instance read the following:

TO OWNERS OF HORSES.

This may certify that I have had for many years the care of from

100 to 200 Horses,

and have made use of Merchant's Gargling Oil for two years past, and can safely say, that for all the diseases that horses are liable to, I never saw its equal. I use about one bottle per month, and recommend it to the public, as the best medicine for horses now in use. E. D. MINOR.

FOR SALE by A. McClure & Co., Burrows & Nellegar, and George Dexter, Albany; W. S. Wood Cohoes; D. C. Constable, Schenectady; Dr. C. Heimstreet, J. F. Prescott, P. D. Orvis & Co., and Wm. Briggs, Troy; Wm. Tucker, West Troy; Heber Walsh and C. S. Casy, Lansingburgh. Also, by respectable dealers generally in the United States and Canadas.

CAUTION TO PURCHASERS.—Beware of Counterfeits, and be sure the name of the sole proprietor, GEORGE W. MERCHANT, Lockport, N. Y., is blown on the side of the bottle, and in his hand writing over the cork.

All orders addressed to the proprietor will be promptly responded to. ☞ Get a pamphlet of the Agent, and see what wonders are accomplished by the use of this medicine.

HORSES.—We would call the attention of that portion of our readers who are in any way interested in horses, to the advertisement in another column, descriptive of the celebrated medicine called "Merchant's Gargling Oil." From the peculiar nature of the article, and the unparalled success it has met with in the hands of those who have the care of horses, it is but justice to say, that of the great number of medicines which have been offered, none have been so well adapted to the prompt cure of most diseases to which horses are liable.—*Detroit Express.*

Oct. 1—1t.

JUST PUBLISHED,

BY DERBY, MILLER & CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J. THOMAS.

A GREATLY enlarged and improved edition of the Fruit Culturist, containing more than triple the matter of the former editions, having been wholly re-written, so as to embrace essentially

ALL THE VALUABLE INFORMATION

Known at the present time, relative to

FRUITS AND FRUIT CULTURE.

It will contain

THREE HUNDRED ACCURATE ENGRAVINGS,

And will include condensed and full descriptions of all fruits of merit or celebrity cultivated or known in the country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

The numerous figures of fruits are

EXACT IMPRESSIONS

Of average specimens. The descriptions have been prepared in nearly every case, from the fruits themselves; and to distinguish fixed from accidental characters, careful comparison has been extensively made with specimens from several different states, and with the descriptions in the best American works on Fruits.

To determine the qualities as adapted to different regions, assistance has been largely furnished by a number of the most eminent pomologists of the Union.

The whole making a handsome duodecimo volume, of over 400 pages, at the low price of One Dollar.

DERBY, MILLER & CO.

Auburn, Sept. 1, 1849.—1t.

Wheelers's Patent Railroad Horse Powers and Threshing Machines.

THE subscribers having been appointed agents for selling the above celebrated machines for the city and vicinity of New-York, in place of A. B. Allen & Co., (who have heretofore had the sale of the same,) they solicit the attention of those wishing to purchase.

☞ The farmers of Long Island can be supplied with a machine equally well adapted for their use, and which is afforded at the same prices, without any extra charge for premiums or Patent rights. All are warranted to give satisfaction, or are subject to be returned and the full purchase money refunded. A supply constantly on hand at their Warehouses, Nos. 187 Water Street and 195 Front St., New-York. JOHN MAYHER & CO.

Sept 1.—tf.

Nursery of J. J. Thomas,

Macedon, Wayne Co., N. Y.

THIS nursery now contains many thousand fine trees, of large, handsome and thrifty growth, consisting of Apples, Pears, Cherries, Peaches, Apricots, &c., and the smaller fruits, of the best standard sorts, and most of the finest new varieties; ☞ *in all cases they have been propagated for sale after being thoroughly proved in bearing.* ☜

The collection of APPLES, consisting of many thousand large trees, mostly 7 to 9 feet high, embraces the finest standard varieties, and nearly all the valuable new sorts.

Very fine pear seedlings, at $12 per 1000, two year old apple seedlings, at $5 per 1000, Horse chestnuts 1 to 2 ft high, at $5 per 100, &c., &c.

When purchasers desire, selections of the best for affording a regular succession of fruit throughout the season, will be made by the proprietor.

A carefully assorted collection of hardy ornamental trees, shrubs, and herbaceous perennial plants, will be furnished at very moderate prices.

Trees for canal and railroad conveyance, will be well packed in bundles, enclosed in strong mats, with the roots mudded and encased in wet moss, so as perfectly to preclude all danger of injury.

All communications, post-paid, to be directed Macedon, Wayne Co., N. Y. Sept. 1.—2t.

Selling Off.

LINNÆAN BOTANIC GARDEN & NURSERY, late of WM. PRINCE, deceased, *Flushing, L. I., near New York.* WINTER & Co., Proprietors. In consequence of the decease of the Junior, and of the advanced age of the surviving Partner, the entire stock of this establishment, comprising every description including the newest and choicest varieties of

FRUIT AND ORNAMENTAL TREES,

Shrubs, vines, Plants, Roses, &c., will be disposed of at very reduced prices, in order to close the business as speedily as possible.

Orders accompanied with the cash, to the amount of $10, or upwards, will be supplied at a reduction of 25 per cent. from the usual prices.

Nurserymen, Venders, and others, wishing to purchase by wholesale, will be supplied at such reduced prices according to kind and quantity, as will probably prove satisfactory to them.

Descriptive Catalogues gratis on application, post paid.

Sept. 1, 1849.—2t.

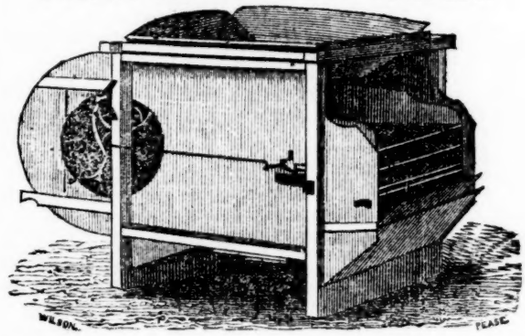
Books for Rural Libraries.

THE following works are for sale at the office of THE CULTIVATOR, No. 407 Broadway, Albany:

American Agriculture, by R. L. Allen, $1.
—— Shepherd, by L. A. Morrell, $1
—— Poulterer's Companion, by C. N. Bement, $1.
—— Veterinarian, by S. W. Cole, 50 cents.
—— Herd Book, by L. F. Allen, $3.
—— Farmers' Encyclopedia, $4.
—— Flower Garden Directory, by R. Buist, $1.
Agricultural Chemistry, by Prof. Liebig, $1.
" " by Prof. Johnston, $1.25.
" " by Chaptal, 50 cents.
Cottage Residences, by A. J. Downing, $2.
Domestic Economy, by Miss Beecher, $1.
Domestic Family Receipt Book, by Miss Beecher, 75 cents.
Family Kitchen Gardener, by Robert Buist, 75 cents.
Farmer's Manual of Manures, by F. Falkner, 50 cents.
Fruit Culturist, by J. J. Thomas, 50 cents.
Fruits and Fruit Trees of America, by A. J. Downing, $1.50.
Farmers' Dictionary, by Prof. Gardener, $1.50
Farmers' Companion, by Judge Buel, 75 cents.
Lanscape Gardening, by A. J. Downing, $3.50.

I. T. Grant & Co.'s

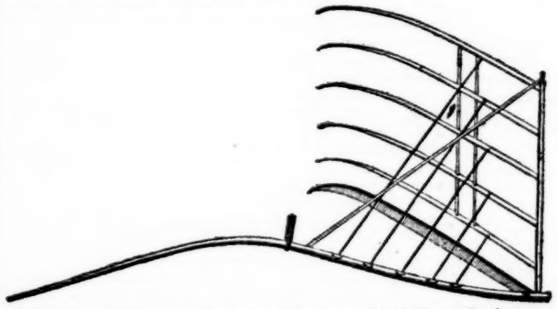
PATENT FAN MILLS AND CRADLES.



WE continue to manufacture these celebrated Mills and Cradles. They have been awarded six first premiums at the New York State Fairs, and at the great American Institute in New York, and several County Fairs, always taking the first premium over all other mills. The manufacturers feel confident, therefore, in offering these mills to the public, that they are the best in use. During the year 1847 they were introduced into England, by Mr Slocum, of Syracuse. They were very favorably noticed by the English papers; and from a communication of Mr. S.'s, published in the Transactions of the N. Y. State Ag. Society, for 1847, it will be seen that they were tried by several large farmers, and highly approved. One farmer, it is stated, set aside an almost new winnowing machine, for which he paid £18, ($90) and used Grant's for cleaning a crop of 300 qrs. (2,700 bushels) of wheat, and several hundred bushels of mustard seed. We have lately made some valuable improvements in the article, though the price remains the same as before.

Our fans are extensively used and highly approved at the south, for cleaning rice. We are permitted to make the following extracts from letters received from Hon. J. R. Poinsett, of South Carolina:—" The fan you sent last summer, [1848] has been successfully used to clean dirty rice, and winnow that from the threshing floor. It answers every purpose." In relation to another of our fans, he writes, (April 23. '49.)—" Both this and the first mill you sent, work very well; and the last, which is the largest that can be well worked by a man, cleans the dirty rice perfectly, and is altogether the best wind-fan I ever used for that purpose."

Our Cradles have taken the first premiums at two New York State Fairs, and are considered the best in use.



The great encouragement we have received from dealers and agriculturists, has induced us to greatly enlarge our business, and we hope by strict attention, to merit a further patronage.

Orders will be thankfully received, and receive prompt attention.

I. T. GRANT & CO.

Junction P. O., Rens. Co., 8 miles north of Troy.

May 1, 1849.—5t. eom.

To Nurserymen, Orchardists and Gardeners.

THE subscriber offers for sale at his nurseries, at Plymouth Mass., Pear, Quince, Cherry, Plum, Apple, Paradise and Mahaleb stocks, suitable for grafting in the Spring, and for budding the coming season. Mountain Ash, Elm, Spanish Chestnut. Ash, Maple, Lime, Alder, Larch, Scotch fir, Silver fir, Norway fir, Arbar Vitæ, Balsam fir, from 1 to 4 feet; Cedar of Lebanon, Araucaria imbricata, Deodar cedar, Oaks, Althæas, Hawthorns, Lilacs, Spiræas, Syringas, Deutzias, Acacias, Roses, Honeysuckles, Climbers &c. Raspberries, May's Victoria and other currants, Gooseberries, Native grapes, Foreign grapes in lots for vineries, Myatt's Victoria, Early Scarlet, and other rhubarbs. The best native and foreign *Pears*, 1 to 5 years from the bud, fine thrifty trees and well grown. 40 Select named Verbenas, all of Beck's Pelargoniums, in 23 varieties, including those of last season, being the finest Pelargoniums ever introduced.

Priced Catalogues sent on application.

Sept. 1, 1849.—3t. B. M. WATSON.

Fruit Trees.

THE subscribers offer for sale this fall their usual assortment, viz: Apples, Plums, Pears, Cherries, Peaches, and Ornamental Trees.

The following Pears on the QUINCE.

Louise Bonne de Jersey,
Bartlett,
Virgalieu, (White and Gray,)
Onondaga, or Swan's Orange,
Duchesse d' Angouleme,
New Gray Winter Beurre,
Doyenne d' Ete, or Summer Virgalieu,
Columbia,
Bloodgood,
Vicar of Winkfield,
Beurre Diel,
Dearborn's Seedling,
Leon Le Clerc.

Also, a few hundreds of the European Mountain Ash, of an extra size. WILSON, THORBURN & TELLER,

Albany, Sept. 1.—3t. Nurserymen.

Syracuse Nurseries.

Thorp, Smith & Hanchett, Proprietors, Syracuse, N. Y.

FIFTY acres of the fertile soil of Onondaga Co. are occupied by the proprietors of these nurseries in the cultivation of *fruit trees* alone, embracing almost every desirable variety of Apple, Pears, Peach, Plum, Cherry, Apricot and Nectarine. Trees sent from their nurseries are universally admired for their vigorous, healthy, and *youthful* growth,—the best guarantee to the purchaser of a rapid advance to largeness of size, and beauty of form,—and it is the aim of the proprietors to be able to supply those who may favor them with their orders with a quality of trees always superior.

Among their varieties of the apple, they have many thousands of the justly celebrated NORTHERN SPY, *from seven to nine feet in height*, which they will continue to supply, as heretofore, in an assortment with others, at the *same rate*. Where the selection is left to them, a portion of the Northern Spy is always included. They cultivate largely, also, the *Hawley*, the *Green Sweeting*, the *Ladies' Sweeting*, *Peck's Pleasant*, *Swaar*, *Baldwin*, *Spitzenburg*, in short, all of the best standard varieties, early and late. Among forty of the choicest kinds of pears, they have large sized and well formed trees of the *Onondaga*, *Oswego Beurre*, and *Van Mon's Leon Le Clerc*. Of cherries, peaches, plums, &c., their nurseries include, in large numbers, all that are most desirable. Purposely limiting their varieties of fruit trees to those only that are of approved worth, their Catalogue will be found to contain scarcely one that ranks below "*first rate*." Persons desiring to buy at *wholesale*, can be supplied on the most liberal terms, and can depend upon obtaining selections of the best varieties, as well as trees of the finest growth.

The proprietors have been much gratified by the constantly increasing demand for their trees, from the Eastern part of this state, and from New England; and in soliciting a continuance of favors from those quarters, they pledge themselves that the productions of their nurseries shall not forfeit the partiality which is so flatteringly bestowed upon them.

Much care is given to the packing of trees, so that they can be transported with safety to any distance.

Catalogues may be obtained at the apothecary store of M. W. Hanchett, between the Railroad and Syracuse House; and by *post-paid* application to the proprietors.

August 1.—3t.

John Mayher & Co.

United States Agricultural Warehouse, 195 Front, one door south of Fulton Street, New-York City,

WHERE they have for sale over 200 different patterns and sizes of Plows, of the most approved kinds, and suitable for all kinds of soil, together with the most extensive assortment of Agricultural Implements ever offered for sale in the city of New York, which will be sold at lower prices than they can be obtained at any other establishment. Purchasers will do well to call and examine their stock before purchasing elsewhere. Among the plows advertised will be found J. Mayher & Co's celebrated and unequalled First Premium Eagle D Plow, without doubt the best and cheapest plow to be had in the United States.

N. B. Castings of all kinds made to order.

New-York, Sept. 1, 1849.—tf.

Hamilton Nursery.

THE proprietor of this establishment confines himself wholly to the propagation of hardy Fruit Trees, all of which have been obtained from the most reliable sources, or cut from bearing trees of well known varieties. About sixty varieties of plums and a large quantity of the Apples have been proved on his own grounds, and all are cultivated with his own hands, assisted by his son, who is soon to assume a personal interest in the business. And all the cutting of buds or grafts, and the labeling of trees, with the oversight of taking up and packing, being done by him in person, he feels confident of being able to give as good satisfaction as to correctness, as can be given at any other nursery. The stock of apples is large, and embraces numerous varieties, so that the Fruit Grower and Amateur Horticulturist can each be supplied.

A liberal discount to nurserymen and dealers in trees.

Seedling stocks of Apples and Plums for sale.

AGENTS.—Geo. G. Sheppard, 145 Maiden Lane, New-York; H. L. Stephens, Honesdale Pa., Wm. J. Hamilton, Ringwood, McHenry Co., Ill.

Catalogues sent gratis to all *post paid* applicants

Canterbury, Orange Co, N. Y. CHARLES HAMILTON.

Sept. 1.—2t

White Dorkings.

THE subscriber has on hand, a few choice White Dorking fowls which he will sell at fair prices—bred by himself. As far as his knowledge goes, this variety of the Dorkings is more sought after, both in England and in this country, on account of their color. L. DURAND.

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Manufactured by "the George Bommer New-York Manure Co."

THIS manure is made chiefly of Fecal Matter from the sinks, in which is mixed a small portion of substances that are of themselves, powerful agents of vegetation, and possess the virtue to fix and retain the ammoniacal gas of the matter.

The great desideratum of the agriculturist has always been, to find out some process by which excrements might be solidified quickly, and all their fertilizing properties so strongly retained, that the manure may dissolve slowly and in proportion to the requirements of the plants, and therefore produce its effects for a time equal to that of farm manure.

This process was at length discovered by the French Chemists, and is now carried out with complete success in more than sixty of the large cities of France, where such manure factories are in full operation.

The "G. B. N. Y. M. C." has established a Factory on an extensive scale near the city of New York, in which they manufacture this kind of manure, and as the fecal matter can be obtained in this country at less expense than in France, the manure will not only be made stronger, but will be sold at a price less than in the French cities, this price being so established as to afford only the reasonable remuneration to which we are honestly entitled, the more so, as its manufacture is not of the most agreeable kind, and withal, troublesome and laborious.

The manufacturing department is under the special charge of GEORGE BOMMER, Esq., who has a perfect scientific and practical knowledge of manure matters generally; and the company has established a standard for the strength of its manure, from which it is intended not to deviate, so that its customers may at all times be furnished with an article really worth what they pay for it.

Our manure is an inodorous grain, and as the substances from which it is made contain of themselves all the elements necessary to the fertilization of the soil and growth of plants, it is extremely well adapted to such purposes.

To manure an acre highly, it requires 12 to 15 barrels, or 36 to 45 bushels spread broadcast. Applied in hills, half of the quantity will suffice. Its application is simple and easy, and printed instructions for its use will accompany each parcel sent to order.

We desire it to be remembered, that our manure has no similarity to another known under the name of "poudrette," although the principal component of ours (the fecal matter) is the same as that which is used in the poudrette, in a much less proportion; our auxiliary substances, as well as our manufacturing processes are altogether of a different nature and kind.

It belongs not to us to eulogise further, the quality of our manure; what we desire at present is, to call upon the members of the agricultural community, to try it! and we have reason to assure them, that they will find it the most profitable manure they have ever used.

PRICES, TAKEN AT THE FACTORY:

37½ cents per bushel, without package;
50 cents per bushel, packed in Barrels, or
$1.50 per Barrel, package included.

Orders addressed to the above Company, at their office, 72 Greenwich St., New-York, will be promptly attended to.

By order of the Board of Trustees,

New-York, Jan., 1849.—tf GEO. BOMMER, Director.

☞ The factory will be in full operation early in the spring, and manure can be had in April next, and at any time afterwards.

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J. P. NORTON, Professor of Agricultural Chemistry.

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